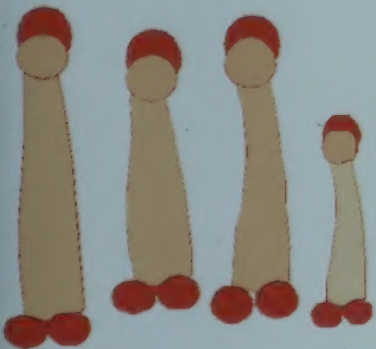


Mental Health, Pregnancy and Childbirth: Evidence



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Supported by:
John D. & Catherine T.
MacArthur Fund for Leadership Development, 2001

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Foreword

We are presenting our report here of our (views and) reviews of literature on the mental health aspects of maternal health care. We started doing this work, thinking that such a document may be useful to various people working in the areas of health, mental health and reproductive health. We hope that program organizers, researchers, students, trainers, policy shakers, and others with a trained eye for new and exciting areas, will find something interesting in our presentation.

Having strong feelings for "mental health", both of us, we heaved and sighed for many weeks, grieving the prominent loss of such a vital, core topic, in the reproductive health literature. We pledged to fill this gap and here we are, presenting a large portion of what we found. We haven't put in everything we found, because, well, we didn't have the time to organize all the other stuff.

Dr Vikram Patel (Sangath, Goa) and Renu Khanna (SAHAJ, Baroda) reviewed our initial, excellently scrambled draft. Both gave us unrestrained feedback, which we have found very useful. Their comments have helped us in extensively re-organising the draft. It has helped us to stay as close to the given data as possible, while still managing to let some hard questions slip through. However, we have not considered every suggestion given and if there are grievous errors due to this, then, we take complete responsibility for it.

We appreciate Poonam Muttreja and Dipa Nag Chowdhury, from the Mac Arthur Foundation office, New Delhi, for keeping faith in our work. A Mac Arthur Fund for Leadership Development, given to one of us, supported our work. This project happened in Bapu space, for which we are happy and grateful. We made a lot of friends, had fun and fought hard, did a little bit of work, and saw an organisation grow. It was nice to be a part of all that.

We want to convince everybody through this report that mental health is the backbone of maternal health. All topics in maternal health must begin with some concept of experience of wellness (a core mental health subject).

Some readers may call our woman-anchored perspective a prejudice, others may call it a rather difficult journey... yet others will dare us to clarify our type of feminism. We have had fun doing this report together, and will cherish the time spent together, working on some very difficult topics. It has been very exciting for us to work on this report, and bring it finally to a presentable format. We doubt if it is the most perfect document possible, but we have done our best. We would be delighted to receive your critical comments on this report. It will help us improve our style a little bit. Thanks.

Bhargavi Davar

Sonali Wayal

Pune, January 2004.

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1. Motherhood



*"Motherhood can be a positive life experience because of the special and unique physical and emotional engagement of the woman with a foetus growing within her. The intimacy, the total engulfment of the mother and child in a common physical and experiential environment, the complete inter-dependence of the foetal and the maternal systems, the mental absorption that this generates in the mother: all these make motherhood an irreplaceable experience. It has an inherent value as a completely private and intimate experience"*¹.

Pregnancy and childbirth are normal physiological experiences in the lives of many women. It can be a very positive experience in itself. A recent collection of narratives of 17 single mothers brings to the fore the myriad experiences of pleasure and pain, joy and sorrow, vulnerability and agency experienced by these women². This journey may not have been trouble-free, yet *all* these women valued being a mother.

However, various socio-cultural constructs and expectations, age of the woman, her health status, quality of relationships and health care related experiences may actually shape the experiential reality of pregnancy, childbirth and mothering. Mothering is a universal expectation made upon women. In a recent study, women described procreation as a family and social obligation and as closely linked to social status³. Women without children do not have access to ceremonies like marriage, naming ceremony etc. A woman who does not want to bear a child and who dares to say so, stands the risk of being divorced, deserted, face violence or be termed as "abnormal" or "sick"⁴.

The culture may celebrate motherhood. Yet, women do not have the decision-making power and autonomy to decide when, where, how and how many children to give birth to. Studies show that though it is considered to be the duty of a woman to bear a child, especially a son, this duty does not come with equivalent privileges. Ritual privilege (birth rituals, naming ceremony, initiation, etc.) often

remains with the father. A study conducted in Bangladesh showed that the hierarchies of power at home played a central role in determining where women gave birth⁵.

In many societies, marriage is considered the cultural gateway of motherhood. Young girls are socialised into mentally accepting marriage and motherhood at a young age, by various restrictions and proscriptions on her sexuality. Unmarried women risk being labelled as having a "bad character", and are forced to seek abortion, often in a clandestine manner, without any resources, support or succour. If they decide to go ahead with their pregnancies, they face the risk of being ostracised or otherwise severely punished.

Young girls, pushed into early marriages, are forced to face motherhood when their own physical and psychological developmental needs are unmet. If poor, they are already compromised in their health and nutritional status. For them, childbirth may be a life threatening or severely self-depleting experience.

Equally troubling, are the realities of women forced to face the consequences of sterilisation or the use of contraceptives about which they have little information. We may also mark the anguish of the women unable to resist the power of technology in determining the fate of her unborn girl child; and the desperation of the woman facing the violence of her husband and his family, because she has birthed a girl child yet again.

Narratives of single mothers show that without social support from parents, in-laws, relatives, neighbours or friends, mothering would have been very difficult for these women. A husband may not only fail in his responsibility as a father, but may himself be an additional burden on the woman. Violence, threats for money, spending money for buying alcohol or other substances, and husband "absenteeism" appears to be a reality of many women's lives, especially of women from low socio-economic groups⁶.

It is these varieties of motherhood experiences that have led feminists to write about the systemic aspects of it. Nicolson (1998) has written that the birth of a child takes place within the dynamic life situations of women, affecting them physically, economically as well as emotionally. There is a strong argument to be made against naturalising motherhood, as "social reproduction" is far more significant in shaping daughters into mothers than the natural capacities⁷. A study on teenage mothers shows that the desire for motherhood is not so much a biological urge, but rather a way of obtaining privileges unavailable to childless women⁸.

In an uncaring health provider scenario, the systemic struggles and cycles of desperation in which women, and expectant mothers get caught in, multiply. Women bear the full pain and costs of childbirth and motherhood on their own, while not being given the status of provider, making at least one mother write: "Since mothering is essential to society, there is need for others to share the pains and costs of mothering. The assumption that women are primarily caretakers rather than providers underlines the absence of systematic efforts to set-up institutionalised, safe and high quality childcare services"⁹. The burden of responsibility, without the attendant benefits, the overload of caring functions results in psychological ill health for many women¹⁰.

There is indeed a tale of anguish that needs to be understood and articulated with respect to motherhood. However, the psychological and psychiatric perspective on motherhood has on one hand, glorified motherhood. On the other, the literature has equally considered the woman *solely* liable for her own mental distress *as well as* for the vices in her children. Indian psychologists like Sudhir Kakar have written approvingly and endearingly about the identity of the Indian woman as a mother, especially as the mother of a son, thereby romanticizing motherhood¹¹. Mothers have been implicated in psychopathologies ranging from arson to incontinence, drug abuse to bad dreams¹². Ross (1995) has referred to this tendency in the psychiatric literature as "mass mother-blaming psychosis" (p.399).

We want to say that, if only it weren't for these many structural, cultural and psychosocial barriers, motherhood would come naturally and joyfully to many women. Mental health in pregnancy and thereafter, therefore, would aim at the removal of all these blocks, so that women may experience a feeling of wholesomeness and well being in the process of birth and mothering. In this review, we are presenting evidence on the linkages between mental health and motherhood.

1.1 Our purpose

The overall purpose of our work has been to obtain an integrated review, based on available evidence, of the linkages between reproductive health and mental health. In this review report, we are exploring the mental health aspects of pregnancy, childbirth and post-partum. Through this work, we advocate the integration of mental health with concerns- (research, intervention and policy)- about maternal health, a dimension hitherto missing in the literature on maternal health.

1.2 Our objectives

This report is a research review. It reviews research studies since 1990 on the mental

health dimensions of pregnancy, childbirth and post-partum. The objectives of the review are:

To present and examine the available data on the mental health aspects of pregnancy, childbirth and post-partum

To make the linkages between women's health, maternal morbidity and mental health

To present data coming from feminist or women's studies as well as psychiatric data for making the relevant linkages, or for raising critical questions

To draw, where possible, implications for clinical work or for interventions, especially those that are preventative

To highlight research gaps

To articulate policy questions in the light of available data

1.3 Our methodology

We collected resources directly linking reproductive health and mental health. An interdisciplinary approach was adopted for the review. We looked at studies on the following subjects: psychiatry, obstetrics and gynecology, psychology, nutrition, women's mental health and women's health. For the review, both manual searches [Appendix-I] in libraries as well as web searches were conducted over a two-year period. Books, study reports, internationally peer reviewed journal articles, community research reports, and policy papers have been considered in the compilation. For presenting the available data, we have considered studies, which had a clear research problem and design. While the focus was on Indian studies or studies from the Asia-Pacific region, western studies could not be avoided, as they set the pace for the Indian research. Community studies, social science studies as well as epidemiological and clinical studies were looked at. Evidence coming from women's studies, reproductive health, maternal health have constituted vital data in reviewing

the medical texts. PUBMED, MEDLINE databases and the NEUROMED database recently brought out by the National Institute of Mental Health and Neuro-Sciences, Bangalore, were searched. Citation indices and author searches were used for tracking recent work by prominent mental health professionals working in the area. For cross validation of our data, we looked at evidence bases (*Evidence base in mental health*) and other comprehensive recent reviews. Some articles were unavailable in India or in Pune city, and papers were obtained by writing to the professionals concerned. Key journals (such as *Indian Journal of Psychiatry*, *British Journal of Psychiatry*, *American Journal of Psychiatry*) were updated after the review was done.

1.4 Why mental health in maternal health?

Why should mental health be an integral part of planning maternal health care? The vast literature on maternal health, some of it reviewed in this report, has suggested that women's emotional health cannot be separate from their physical health, and that we need to look at maternal health holistically. However, evidence gathering and advocacy for improving maternal health has focussed more on the physical aspects of women's health.

Given the high rates of maternal mortality in India, and the causes for it, this focus on the physical aspects is quite understandable. However, the occurrence of self-harm and suicide, which are associated with depression, both indicating poor mental health, are mortality related. We are not aware of the measure of depression, or suicidal attempts, which may be reflected in maternal mortality figures. Having marked this as an important issue, however, we qualify that mortality is not the only indicator of women's health.

Women's overall health status as well as their mental health status has a *common set of*



social determinants, fundamentally linked to inequity, their poor chances of survival, or of living a life of total well being. The social factors include poverty, lack of education, economic and housing problems, food insecurity, hunger and malnutrition, occupational and environmental threats, low decision making powers within the household, marital conflict and domestic violence. If inequity compromises women's physical health, it also compromises their search for psychological opportunities of looking beyond their present situation and desiring higher goals.

Depression makes women less interested in their own bodies and in self-care. Depression increases the risk to other health problems. It makes women more despondent and withdrawn, less inclined to seek health care and less concerned about keeping to any health plan. Depression may bring about additional health risks, such as substance abuse.

On the other hand, certain health conditions may initiate or aggravate emotional problems, such as sepsis, severe infections, severe anaemia, endocrine disorders, vitamin deficiency or cancer. Depression may be one more way of detecting the health problems afflicting a woman (if at all one more method is needed).

Health and mental health aspects of maternal well being have to be considered together, because they influence and impact each other. Poor mental health may influence health status, and poor health and nutritional status may influence mental health status.

Besides this, recent world data, notably the *World Health Report, 2001*, have emphasised the enormous disability caused by mental ill-health *per se*.

From the perspective of health care rights, emotional well being is an important health care right for everyone. So this aspect of health needs to be addressed.

Flow of text: In our review, the flow of the text may be described as follows. First, we describe the general linkages between maternal health and mental health, by providing overviews of recent discussions and data. Following this, we take the discussion through the emotional aspects of maternal health in various stages, starting with community studies through psychiatric studies. The community studies cover the positive mental health aspects of maternal well being: nutrition and general health status. This is followed by medical topics. Post-natal depression, a topic of contemporary importance in mental health, is considered in detail. We integrate issues of relevance here, including abortion, still birth, violence and infections. We discuss treatment / intervention aspects along with. We review studies looking at prevention of emotional ill health. We compile together the various suggestions of the studies, and end with a section highlighting research gaps and gender concerns.

Key points

- ❖ Mental health should be integrated in any holistic program on maternal health.
- ❖ The social determinants underlying both maternal health status and mental health are overlapping and cross determining.
- ❖ Right to quality mental health care must be an integral part of any advocacy for maternal health care rights.

1.5 Our assumptions

Our review covers a number of medical, psychiatric and clinical studies. Our review is based on two clear expectations from clinical practice, which we clarify below:

We expect that clinical practice conformed to notions of “evidence base”.

We expect that the practice were mindful of its own constructions about “gender”.

1.5.1 Evidence base

“Evidence base” is a modern concept in clinical practice. The medical fraternity generally accepts that what is not validated by scientific evidence, is not ethically sound practice. As the American Psychiatric Association (APA) 1992 notes, mental health professionals have a responsibility to “maintain a reasonable level of awareness of current scientific and professional information in their fields of activity, and undertake ongoing efforts to maintain competence in the skills they use”¹³. Practising medicine based on an evidence base is seen as a way of giving content to the Hippocratic principle of “doing no harm”.

The earlier approach to clinical practice was the method of “empirical validation / empirical support”. In this approach, it was enough to validate a practice clinically in a single or a handful of isolated studies. For

example, if a clinical study gave positive results about the effectiveness of the use of sertraline (an anti-depressant) in the treatment of depression, this result in itself was considered as sufficient for justifying the use of sertraline. The medical community eventually rejected the empirical validation method as not being in the best interest of the client: The pharma companies and the insurance companies misused this approach in promoting their own vested interests¹⁴.

The newer concept of “evidence base” requires three main criteria to prevail for any clinical practice to be justified:

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Learnings from a research tradition

A clinician has to use broad guidelines of practice as given by the general trends of research and research tradition, including data from meta-analyses, critical reviews, etc., identify broad data flows and outcomes. Data from a single study are inadequate, and data sets have to be viewed together.

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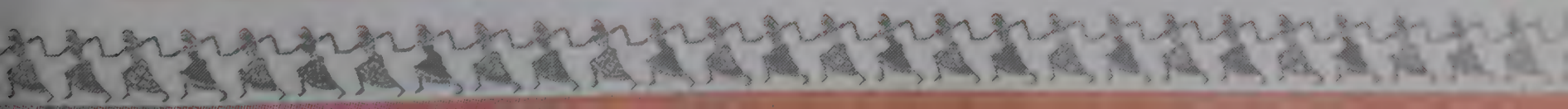
Protocol development

On the basis of the data sets, a clinician has to identify specific protocols that offer direct and specific guidance for intervening with specific clients in specific settings. Therefore, having an evidence base implies having data sets that examine specificity of outcome, diversity of settings and client diversity.

Key points

Reviewing an evidence base is the first, necessary step towards an ethical clinical practice. The criteria required for the evidence base of a clinical program are as follows:

- ❁ The program has a strong research record
- ❁ The program has independent research replications
- ❁ The program has been tested in a variety of sites with good results
- ❁ The program has been tested on different populations by different interventionists
- ❁ The program is replicable by a clear articulation and description, that is, it is specific (e.g. by a manual)



::

Local outcome research

A clinician has to be guided by his or her own local measurement of clinical outcome. Therefore, not being guided by research tradition alone, a clinician has to approach his or her practice with a research mentality, building outcome research into the intervention. This has to suit local conditions. In our review, we are presenting evidence, covering criterion 1 only, that is, general trends. Evidence based thinking in medicine promises a feedback loop between scientific research and clinical practice.

1.5.2 Women-centered thinking in mental health

Feminist thinking in the area of health and mental health guides our review. Feminist thinking unravels the constructions of "illness" and sees it to be a result of women's inequality in various social and political relationships. From this perspective, "mental illness", as a scientific concept, and in the Indian context, is riddled with sexist thinking about women¹⁵. What constitutes "abnormality" in a woman is often defined by the mental and behavioural sciences, in theory and practice, as deviance from the accepted social stereotypes and women's prescribed roles. The mental and behavioural

sciences rarely conceptualise their descriptions of women's mentality within their social, economic and political relationships. Gender relationships, and the politics of power within such relationships are rarely looked into. Experiences of vital impact on women's mental health, such as domestic violence or domestic labour, are not considered to be a part of the "evidence-base", as these are relegated to the realm of the personal, and as external to what is pertinent to the medical-psychiatric. Compromises on women's mental health due to physical problems such as malnutrition, severe anaemia, hypothyroidism, mineral or vitamin deficiency are not considered in mental health care. Textbooks, even the most contemporary of them¹⁶, rarely address questions raised by feminists about the uncritical way in which gender is treated in scientific understanding. Women's negative thoughts, emotions and behaviours are often a result of being in very difficult circumstances. The negative impact of women's social powerlessness on their mental health is ignored, whereas, medical labels are found to describe their behaviours. While psycho-social interventions are rather few in number, in the Indian context, medicines are prescribed and over used for all types of emotional disorders. Psycho-social interventions, too, may be contestable in their assumptions about men and women.

Key points

- ❁ "Mental illness" as a scientific concept, often reflects social norms and expectations about men and women.
- ❁ Women's mental ill health is typically an indicator of her poor social position and powerlessness in relationships.
- ❁ In clinical practice, women's mental ill health is medicalised with needless drugs, while her social position is unquestioned.
- ❁ Women's "voices" must be strengthened in creating women-centered understanding and planning for their mental health care.

Scores of women do experience emotional ill health. Their "voices", hitherto inaudible, must be heard in research, clinical practice as well as in service planning. Women sensitive interventions need to be imagined and implemented.

Our review includes, as evidence, data and information coming from community based, feminist, gender or women-centered research.

Summary: In this report, we are presenting evidence, from a feminist perspective, on the linkages between maternal health and mental health. The aim of the review is both to present medical information as well as to examine it from the point of view of the community and women. The review is inter-disciplinary, but is limited to research studies. Studies from India as well as western studies are included. In the following section, we present data on maternal mortality and morbidity, looking at some recent studies.

End Notes

1. Davar, 1999: p. 218
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3. Kendell, et. al. 2001
4. Vindhya, 2001
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6. Mehrotra, 2003
7. Chodorow, 1978
8. Phoneix, 1991
9. Mehrotra, 2003: p.201
10. Davar, 1999: pp. 209-230
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13. Sexton & Liddle, 2001: p.388
14. *ibid.*
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16. Vyas & Ahuja, 1999



2. Maternal mortality and morbidity



It is against the context of women's general health, reproductive health and maternal health status that any discussion of their mental health can take place. Here, we briefly present recent data on maternal mortality and morbidity¹.

The data presented in the following section brings to the fore the fact that a great burden of mortality and morbidity is borne by women during pregnancy and childbirth. The studies indicate that gender, social support, socio-economic factors, access to health care, and quality of care play a crucial role in determining the health of a woman during pregnancy and postpartum.

2.1 Maternal mortality

□ Globally around 5,815,000 maternal deaths² take place, 99% of which take place in developing countries³.

□ In developing countries as a whole, maternal mortality ratios (MMR)⁴ range from 90 to 870 per 100,000 live births including Latin America and Caribbean, Africa and Asia. An average of 450 deaths per 1,00,000 live births has been reported in the literature for this region⁵. The comparative MMR for Europe is between 2 to 5 deaths per 1,00,000 live births.

□ In India, MMR is reported to be 570 and lifetime risk of maternal death is 1 in 37.

In India MMR is the highest in Assam i.e. 1000 per 100,000 live births and the lowest in Kerala where it is around 200. Besides, in the urban areas, maternal mortality was found to be 60% of the level observed in the rural areas⁶. A community level study conducted in Anantpur, Andhra Pradesh indicates an MMR of 830 and 545 in rural and urban areas, respectively^{7,8}.

2.1.1 Causes of maternal mortality

Haemorrhage, sepsis and eclampsia, along with anaemia, cause the large majority of maternal deaths in India. Other direct causes are obstructed labour and abortion⁹. Indirect causes¹⁰ of maternal deaths include anaemia, heart disease, hepatitis, malaria, tuberculosis and jaundice. Anaemia, blood loss and pregnancy induced hypertension accounts for over 50% of maternal deaths¹¹.

Table 1

Estimates of direct and indirect causes of maternal mortality

Causes of maternal mortality, 1993, rural India	Estimates
Haemorrhage	22.6
Anaemia	20.3
Eclampsia	12.8
Infection	12.5
Abortion	11.7
Obstructed labour	5.5
Others	14.6

Source: India, Registrar General, 1993 (as noted in Jejeebhoy, 2000)

There is little data on the estimates of maternal deaths due to depression and suicide. A recent review on suicide among women brings to the fore that, except India and China, almost everywhere suicide rates among women were much lower than among men¹². India and China reported higher rates among young married women. The reproductive process, especially unwanted pregnancy, led to suicide under certain circumstances and severe labour occasionally led to suicide. The context of violence and its links with death and maternal suicide also needs to be considered.

2.2 Maternal morbidity

It has been reported that for every women who dies, many more live with permanent injury or chronic disability following complications from pregnancy or delivery¹³.

Table 2

Total Disability-Adjusted Life Year (DALY)¹⁴ lost due to reproductive ill-health in women and men of reproductive age, as a percentage of total DALYS lost in the 15-44 years age group, 1990

	STDs excluding HIV		HIV		Maternal condi- tions	Reproductive tract cancers		Total	
	Female	Male	Female	Male	Female	Female	Male	Female	Male
Established market economies	2.36	0.10	0.99	4.08	2.09	3.18	0.02	8.62	4.20
Former socialist economies	3.52	0.30	0.03	0.09	6.25	2.83	0.03	12.63	0.41
Sub-Saharan Africa	6.31	1.79	8.38	6.29	24.45	0.54	0.02	39.69	8.54
India	6.58	2.49	0.20	0.43	19.19	1.42	0.01	27.47	2.93
China	0.21	0.05	0.00	0.01	6.91	0.99	0.01	8.12	0.06
Other Asia and Pacific Islands	7.00	2.05	0.14	0.24	14.55	1.66	0.01	23.36	2.30
Middle Eastern Crescent	1.47	0.32	0.03	0.18	18.70	0.97	0.02	21.17	0.51
Latin American and Carribean	3.97	0.60	1.06	3.63	9.64	2.14	0.02	16.80	4.25
World	4.23	1.09	1.78	2.02	14.47	1.42	0.01	21.90	3.12

Source: Abou Zahr and Vaughan, 2003

As evident from the table above, maternal ill health largely contributes to the DALYs, especially among women from developing countries.

2.2.1 Maternal morbidity in India

A community-based epidemiological study conducted in 1996 showed that for each maternal death, there were 541 morbidities. Of these, 46% were life-threatening and 25% women suffered chronic illness¹⁵. Anaemia,

malaria, jaundice and hepatitis B cause maternal morbidity, and if left uncared for, mortality. Malaria may cause deaths, but may also have severe influence on pregnancy outcomes¹⁶ by causing abortion, premature labour, still birth and miscarriage.

A retrospective-survey conducted in Chengalpattu, Tamil Nadu¹⁷ among 887 women from the low socio-economic background shows that currently married women reported the following about their most recent pregnancy:

Complications during pregnancy and delivery

- Antepartum bleeding
- Prolonged labour
- Obstructed labour due to breech presentation
- Complicated labour/obstructed labour Eclamptic fits
- Excessive bleeding during delivery

Complications within a week following delivery

- Excessive bleeding
- Fever
- Perineal tear (unrepaired)
- Reproductive tract infections

2.2.2 Anaemia

The WHO criteria for haemoglobin levels indicative of anaemia gives a count of less than 12 for non-pregnant women and a count of less than 11 for pregnant women. A UN Committee on Nutrition declared anaemia as a "public health emergency"¹⁸. The adequacy of dietary iron intake by pregnant women in India is only 45%, against the recommended daily allowance for iron at 38 mg / day. Anaemia may be because of iron deficiency, or the deficiency of other micronutrients such as Folate, Vitamin B12, Vitamin A, Riboflavin, Pyridoxine, Zinc and Cobalt. Worm infestations can also reduce the capacity of the body to absorb iron, leading to anaemia. Data shows that 59% of pregnant women from developing regions suffer from anaemia. Data from 1975 to 1991 in India shows that upto 88% of pregnant women in the age group 15 to 49 are anaemic¹⁹. The ICMR anaemia evaluation of 1989 in 11 states showed that upto 88% of women suffered from anaemia and that, around 13% of pregnant women were severely anaemic. The NFHS Survey of 1998-1999 reported that 50% of pregnant

women and 57% of lactating women were anaemic, of which 2.5% and 1.6% were severely anaemic respectively. Iron deficiency anaemia is the 4th leading cause of disability in women between 15 to 44 years of age²⁰.

1 in 5 maternal deaths in India is due to pernicious anaemia, according to the Registrar General of India, 1992. Many of them are young mothers. Rush (1998) noted that India has more severely anaemic women than any other country in the world. In Gujarat, severe anaemia among pregnant women rose from 23% in the 1st trimester to 30% in the 3rd trimester. The prevalence of anaemia of any severity in this population was 86% in the first trimester, and 93% in the 3rd. In Maharashtra, severe anaemia rose from 32% in the first trimester to 47% in the third trimester, with 68% and 94% of women suffering any kind of anaemia in the first and third trimesters respectively. In Punjab, a Boston study showed that 86% of pregnant women were anaemic, with 58% of them having Hb levels of <70g/l.

2.2.3 Nutritional status of women during pregnancy

One in every three women in India has a body mass index (BMI) of less than 18.5, showing an extraordinarily high prevalence of hunger²¹. Higher female malnutrition, under-nourishment during pregnancy and lactation, the lower intake of proteins and vital foods such as iron, the lower growth dynamics, the lower consumption of food despite heavy labour, the bias and food taboos against female consumption in all household economies may compromise women's health further²². Women work hard, but were last to be self-indulgent with food or rest, even during pregnancy²³. Non-pregnant women eat only 1500-1600 Kcal, with only 30 to 40 grams of protein everyday. There is no increase of calorie intake during pregnancy. Their diet does not contain pulses, fat, or vegetables and lacks all essential nutrients

such as Fe+, Vitamin A, Ca+, and folic acid. The impact of poor nutrition during pregnancy includes abortions, ante-partum haemorrhage, premature labour, and various psychological symptoms not recognized by service providers in the OPD²⁴. Malnutrition, especially during pregnancy and lactation, can result in brain dysfunction and altered perceptions about oneself, resulting in psychological ill health.

2.2.4 Linkages with adolescent health

Poor adolescent health status results in poor maternal health²⁵. The diet of adolescent girls in India is poor and monotonous, with mainly cereals (rice, jowar, wheat or millet, with onions). Adolescent girls are able to eat only negligible amounts of vital foods, such as pulses, vegetables, meats and milk. They suffer from protein, calorie, vitamin and mineral deficiency, and anaemia. Vitamin B deficiency is very common among adolescent girls. Poor nutritional status during adolescence results in growth stunting and low weight. In India, 2 to 3 generations of women have showed no increase in weight and height (46 kilos and 150 cms), unlike other Asian countries such as Japan or China, where nutritional intervention has had an impact. Poor nutritional status during adolescence, coupled with early marriage, is hazardous for both mother and child, increasing risk of infant and maternal ill health, disability and death.

Adolescent mothers as a group, are at greater risk for reproductive health problems. Of the 4.5 million marriages that take place in India every year, 3 million involve girls in the 15-19 years age group. Girls bearing their first baby between 14-18 years of age are at obstetric risk and have low birth-weight babies and perinatal

complications. They are also at higher risk for pregnancy-induced hypertension (PIH) and eclampsia at delivery. They also account for a higher share in abortions related complications and death²⁶.

2.2.5 Structural Issues

Issues of equity take a priority in understanding deficits in maternal health and survival. The social determinants may cause biological compromises. The structural aspects of seeking health care may in turn reduce motivation to seek care. Among the factors noted are²⁷ the poor social situation of women, unequal gender relations, lack of authority to make decisions, socialisation leading to underplay of their own health or to bear in silence, lack of control over economic resources, mis-information concerning feeding practices, misinformation concerning need for care, seclusion practices restricting mobility during pregnancy and especially postpartum, and restricted mobility. The structural problems of health care include poor identification of danger signals, poor awareness of appropriate facilities in case of complications, distance, unavailability of transport facility, and poor quality of services (paucity of staff, paucity of equipment, limited obstetric care, lack of essential drugs).

Summarising, we note the high levels of morbidity during pregnancy and childbirth. These considerations must inform any discussion on mental health. The first step in any mental health program development would be to establish the base line reference for health status, and build a mental health component on that. The limitation of this section is that we have not presented emerging evidence base linking physical conditions (nutritional problems, metabolic problems, medical conditions presenting as mental problems, etc.) in the context of pregnancy and childbirth.



End Notes

- 1) *This data, indeed, may be considered as only representative, and not exhaustive.*
- 2) *Maternal death is defined as the death of a woman while she is pregnant, or within 42 days of delivery, or 90 days from termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management.*
- 3) WHO and UNICEF 1996
- 4) *MMR is maternal deaths per 1,00,000 per live births.*
- 5) Rush, 1998
- 6) Bhat, Navaneetham, and Irudaya Rajan, 1998
- 7) Bhatia, 1993
- 8) *A review of Indian studies (Garimella, 2002) suggests that there may be limitations to MMR estimations. Most studies estimating the risk of maternal deaths are hospital-based retrospective studies. Only a few community studies have been conducted. Community studies have estimated the risk of maternal deaths to be in the range of 1 in 106 to as high as 1 in 5. Hospital-based retrospective studies on causes of maternal deaths indicate that direct causes are the main determinants of maternal deaths, though certain indirect causes also contribute to maternal deaths.*
- 9) *Direct causes are diseases or complications that occur during pregnancy or up to six weeks after delivery or termination of pregnancy from any cause related to or aggravated by the pregnancy and its management.*
- 10) *Indirect causes are those that may be present before pregnancy and are aggravated by pregnancy.*
- 11) Shatrugna, 2003
- 12) Brockington, 2001
- 13) WHO and UNICEF, 1996
- 14) *Disability Adjusted Life Year is a time-based, composite indicator of burden of disease that adds losses of healthy life due to morbidity and associated disability to losses due to premature deaths.*
- 15) Pachauri, 2003
- 16) Gopal, 2002
- 17) Sundari Ravindran, 1998
- 18) Rush, 1998
- 19) Sapre, 2001 reported similar findings.
- 20) WHR, 2001
- 21) Rao, 2003
- 22) Davar, 1999
- 23) Ngoc Nga & Marrow, 1999
- 24) Shatrugna, 2003
- 25) *ibid.*
- 26) Patel, 2003
- 27) Jejeebhoy, 2000

3. Mental health: Scope and burden



Contemporary policy documents and research stress the need for broadening the scope of mental health from an expert-centric, institution based tertiary care perspective, to a community-based prevention perspective. The "social-determinants" model of mental health, widely accepted in mental health the present day, characterizes this shift. Poor social development status and deprivations influence mental health status of populations, including gender inequality, poverty, economic difficulties, hunger, violence, migration, displacement and disasters. Impoverishment of health also affects mental health. This is particularly relevant in the context of reproductive health.

From this point of view, "empowerment" is not just a political concept, but a key mental health strategy. Empowered people would have a greater range of existing mental resources in creating and utilizing opportunities, and a wider variety of reactive, adaptive or coping behaviours, in the face of present stress.

In broadening the scope of mental health in this way, there is a risk of oversimplification, or overstating the case for a social aetiology (e.g. "all mental illness is caused by social problems") and of overburdening mental health policy (e.g. "a mental health policy should eradicate all social problems"). There is a need to define the scope of mental health.

3.1 Scope of mental health

"It is important that there should be clarity about the domain and the purpose of the mental health care sector. The premise is that problems arising out of the break up of relationships, the pressure of work, the loss of a job, or bereavement ("the life problems") are part of human

existence and that people should in principle be able to cope with them for themselves with the help of family or friends. Many people are perfectly capable of doing this, or they find an appropriate way of dealing with the problem. In some cases, however, the life problems can lead to serious mental problems or psychiatric disorders. This is a function of the individual's biological, psychological and social ability to cope. Serious mental problems and psychiatric disorders cause personal suffering and place limitations on the individual's ability to function socially. This is where, in my view, the boundary of the domain lies. It is not the type or the nature of the problems that is at issue, but the question as to whether they lead to severe suffering and serious limitations in the individual's ability to function in society. It is the mission of the mental health care sector to prevent and treat mental problems and psychiatric disorders. The mental health care sector focuses upon recovery and - where this is impossible or not yet possible - on making the consequences of the disorders bearable. The mental health care sector is consequently part of the health care service and incorporates elements of curing, care, support and counseling. In my view, however, the mental health care sector cannot undertake this mission alone. As a result of the moves towards care in the community and the changing wishes of patients, the mental health care sector, the other care sectors social organizations and local authorities are increasingly becoming involved with and reliant on one another in the areas of housing, jobs, education and participation. The mental health care sector cannot provide an integrated service in all areas of life - nor should it attempt to do so. The patient is also a citizen and as such, is entitled to use the facilities available to the general public. The mental health care sector is thus not solely an element of overall health care (and consequently has important interfaces with more than somatic health care alone). The sector is equally part of and a partner in a much broader social chain of support and care at the local and regional level."

Source: Mental health care: Policy document, 1999, The Ministry of Health, Welfare and Sport, The Hague, Netherlands, December 1998

From this definition, three ideas are



filtered out as defining of the mental health area:

1. Mental health is about the burden of disorder or psychiatric "syndromes", which require treatment and care at different levels.

2. MH is about "life problems", which may be sub-syndromal, and are effectively addressed at the community level by using structured prevention programs.

3. MH is about positive mental health, where mental health promotion is integrally linked with social development. This is especially relevant in the context of regions, which carry a psychosocial burden because of various socio-cultural, economic and political stresses.

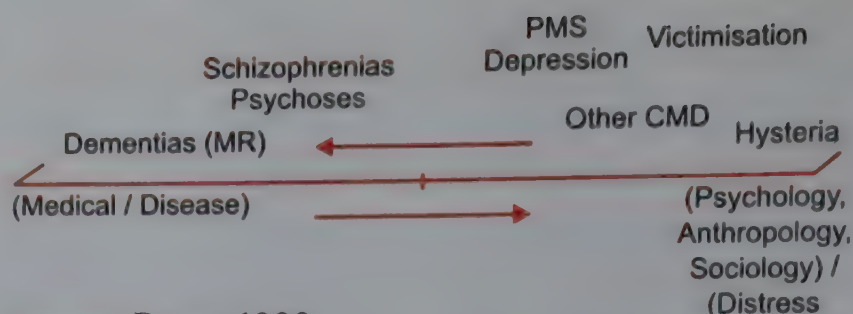
The concept of mental health includes a holistic approach to health and wellness, addressing the diverse needs of people, and where there are severe deficiencies and ill health, then ways to deal with the curative aspects. Mental health includes prevention and promotion aspects as well.

Thus, for example, we know that domestic violence may cause trauma among women, and that the prevalence of domestic violence is high in any population. Prevention of mental ill health would entail the setting up of various violence prevention strategies (including healing opportunities for the batterers).

3.2 SMD and CMD

Just as there is a diversity of health and ill health experiences, there is a diversity and range to mental health and ill health, a range described as being from wellness to distress, and then, to illness. Just as in health, the spectrum of disorders may be seen on a range from the psycho-social to the bio-medical. A broad bio-psycho-social perspective informs the mental health discourse today.

The "syndromal" status of emotional ill health is determined by standard diagnostic



Source: Davar 1999

and clinical procedures, as given in the Diagnostic and Statistical Manual. The American Psychiatric Association [APA] issued the first edition of the DSM in the year 1952. Since then four versions have been brought out. The WHO has brought out the International Classification of Diseases, [ICD-10], taking into account cultural factors of illness experiences. A clinical determination of mental ill health would consider whether the disorder is of a severe type or of a common type . A determination of ill health is based on clear cut criteria, given by the standard diagnostic manuals . The diagnostic categories pertinent to CMD and SMD are given below.

In the context of this report, common mental disorders (CMDs) have been given greater importance than the severe mental disorders. However, this must be considered

CMD	F32	Depression
Common	F40	Phobic Disorders
mental	F41.0	Panic Disorder
disorders	F41.1	Generalised Anxiety
	F41.2	Mixed Anxiety and Depression
	F43.2	Adjustment Disorder
	F44	Dissociative (Conversion) Disorder
	F45	Unexplained somatic symptoms
	F48.0	Neurasthenia
SMD	F20	Chronic Psychotic Disorders
Severe	F23	Acute Psychotic Disorders
mental	F31	Bipolar Disorders
disorders		

Source: Govt. of Gujarat 2003

a limitation of this paper, rather than a matter of informed choice.

Important differences between the SMD and CMD may be briefly mentioned here, to give a context :

1. The SMD hold together more tightly in terms of having the characteristics of a disease entity. The attribution of a medical model is more easily accepted in the case of the SMD.

2. The causes for the SMD are seen to be more physiological or biological, whereas in the case of CMD, they are more psycho-social. This has implications for the best line of treatment to be followed. So, for example, psycho-therapy is considered as an adjunct to treatment in SMD, whereas, it may be a stand-alone treatment in the case of CMD.

3. The social consequences of suffering SMD may be far greater than CMD, including stigma, discrimination, lack of employment, and homelessness. Women with SMD may risk divorce, desertion and long term institutionalization.

Common diagnoses used in describing mental ill health are compiled together in Appendix- II.

3.3 Burden

What we know about mental ill health globally :

- ▶ 10% of any population would be found to suffer from neuro-psychiatric conditions, making up a total of 450 million people
- ▶ Prevalence of mental disorders in persons attending primary health care has ranged from 7.3% (China) up to 52.5% (Chile)
- ▶ 10.5% DALYs are lost to neuro-psychiatric and behavioural problems
- ▶ Depression is the 4th top ranking cause of disability in all people of all ages for the year 2000
- ▶ Depression is the 4th top ranking cause of disability among women in the 15-44 years, next to perinatal conditions

- ▶ 1.9% of men and 3.2% of women may suffer depression

This report has tried to consider the topic of emotional well being from a wellness perspective, than an illness perspective. We are also concerned about the medical and social cost of psychiatric labeling, and have tried to downplay the diagnosis part of mental ill health, using more lay terminology wherever possible. This may have led to looseness and ambiguity. The gain is that it has tied us more closely with the way women experience and express themselves. We have tried to set up a critical dialogue between the psychiatric perspective and the feminist perspective.

End Notes

1. Portions of our presentation here summarises our work for the Mental Health Mission, Gujarat.
2. Desjarlais, et. al. 1995; World Health Report, 2001; Dennerstein, Astbury & Morse, 1993.
3. For example, should a mental health policy make guidelines or allocations for starting micro-credit programs?
4. This distinction is a diagnostic, medical distinction, useful in treatment planning. It is not to be confused with the intensity of the experience. For more experiential measurements, the concept of psychiatric disability is used. The recent discussions around psychiatric disability (recognizing the functional disability caused by having a psychiatric problem), notes three levels of mental ill health based on impairment, handicap or disability. They describe the level of dysfunction such as mild, moderate and severe.
5. These criteria are arrived at by extensive international research, field testing and protocol development, and consensual agreements by the medical psychiatric community.
6. See Davar, 1999 for a comprehensive discussion on SMD / CMD
7. This data has been culled out from the World Health Report, 2001
8. Disability adjusted life years, calculated on the basis of the Global Burden of Disease methodology.



4. Psychiatric problems in pregnancy and post-partum



In this section, we are considering medical psychiatric studies and data that evaluate mental disorder relating to pregnancy and post partum.

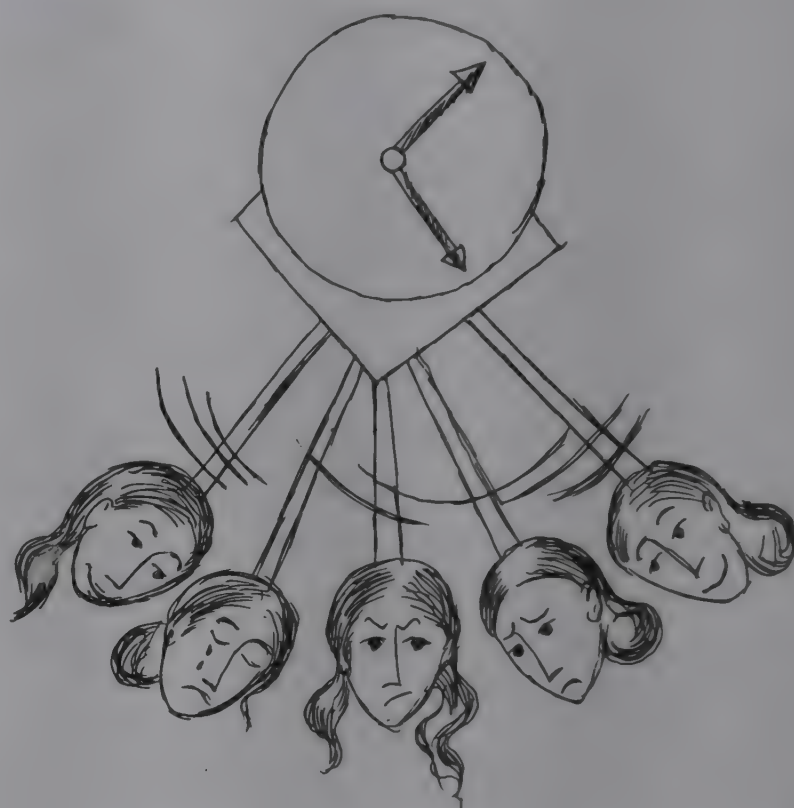
In a study conducted in Zimbabwe 16% of the clinical sample of women had a diagnosable mental condition in the 6 to 8 weeks post partum . A study from China reported that 10.48% of women had anxiety after delivery². A study from India noted that among a clinical population of women presenting with post partum mental health problems³, schizophrenic reactions constituted about 68%, a rather high and atypical rate of prevalence. 25% reported with mood related problems, while another 7% reported with neurotic reactions. In an Indian study, 40% of the post partum women studied had a family history of psychiatric illness⁴, with 75% of the affected family members diagnosed with affective disorders. 30% had a mother or a sister who had suffered from postpartum psychiatric illness.

4.1 Post partum blues

Studies report that up to 50% or more of new mothers may show emotional changes soon after childbirth. A study from Japan had reported prevalence rates of "maternity blues" ranging from 24% - 35%⁵. Typically, the onset and remission is rapid, ranging from a few days to a couple of weeks. This experience is termed as "postpartum blues". Crying spells, sadness, rapid mood swings, more than usual sensitivity in relationships, subjective confusion, insomnia and anxiety are commonly experienced.

A study has shown that typically, post partum blues do not develop into depression⁶. However, in another study, in 7 of the 16 women

with severe postpartum blues the depression persisted, and in 4, it lasted several months⁷. The severity of emotional changes may predict depression in women suffering post partum blues.



For the new mothers experiencing blues, this is the time when bemata, the goddess, has left the mother's body, and the hawa-gola, the empty middle space, is searching for the baby⁸! This period may be a necessary one of being pensive for renegotiating and reorganising with respect to the new social status and cultural expectations. Grief may be experienced in separating from the baby, which now assumes an independent status of its own. It may also be a period of routine postnatal physiological and hormonal changes. This may be a normal period of waiting, for the bio-psycho-social environment of childbirth to normalize.

Course and resolution: Postpartum blues typically resolve in a matter of days. It is not considered as a "syndromal" condition, or as requiring specific medical treatment, other than social support and counselling.

Table - 3

Prevalence of psychiatric problems among women during pregnancy and after childbirth

Author, year	Site of study	Methodology	Prevalence
Chandran, et. al. (2002)	Community, India	Prospective study of 359 women interviewed at 34 weeks of gestation, and 6-12 weeks post-partum	16.2% women in the antenatal period and 19.8% post partum suffered depression
Patel et. al. (2002)	Hospital, India	Prospective study of 270 women interviewed in the last trimester of pregnancy, 6-8 weeks and 6 months after childbirth	45% women in the antenatal period, 23% at the time of the second interview, and 22% at 6 months were depressed
Areias, et. al. (1996)	Hospital, Portugal	Prospective study of couples (54 mothers and 42 spouses or partners) interviewed at 6 months of pregnancy and 12 months post-partum	16.7% among women, and 4.8% among men in the pregnancy period, and 31.5% among women, and 4.8% among men post-partum
Yamashita and Yoshida (2003)	Hospital, Japan	Prospective study of 88 women interviewed at 5th day, one month and 3 months postnatally	17% were diagnosed as depressed at 3 months post-partum
Uwakwe (2003)	Teaching hospital, Nigeria	225 women attending postnatal clinics were interviewed	10.7% point prevalence
Inandi, et. al. (2002)	Cross sectional study, Eastern Turkey	2514 women who gave birth within the last year were interviewed	27.2% point prevalence
Zhang, et. al. (1999)	Hospital based, Fuzhou	1052 pregnant women selected in the period from January to November 1997 were interviewed at the time of selection and 7 days after childbirth	15.01% point prevalence noted post-partum
He, et. al. (2000)	Hospital, China	210 pregnant women were interviewed	37.14% prevalence of post partum depression
Lee, et. al. (2001)	Hospital, Hong Kong	959 women were interviewed at 1 month post partum and 3 months post partum	5.5% prevalence of major depression reported at 1 month, and 6.1% at 3 months
Kit, et. al. (1997)	Hospital, Malaysia	154 women were interviewed 6 weeks post partum	3.9% point prevalence of postnatal depression
Cooper et. al. (1999)	Khayelitshe, South Africa	147 women were interviewed two months post-partum	34.7% point prevalence of major depression noted
Regmi, et. al. (2002)	Nepal	100 women 2-3 months post-delivery and 40 non-post partum women were screened	No difference was found in depression prevalence between post partum women (12%) and control group (12.5%)
Chaaya (2002)	Clinic, Lebanon	396 women were interviewed 24 hours and 3.5 months after delivery	21% prevalence reported

4.2 Depression

Women may experience depression during the pregnancy (antenatal depression) or after childbirth, in the post-partum period (postnatal or postpartum depression). Post-natal depression (PND) is generally considered as a form of Major Depressive Disorder (MDD) or a mood disorder. Women may experience postpartum depression anywhere between 1 ½ months to a 12 month period after childbirth. It is experienced much more frequently among women, though it is suggested that men also may experience something like it, following childbirth⁹. Prevalence ranging from 10%¹⁰ to 13%¹¹ has been reported from the west from prospective, hospital-based studies in the UK. A recent retrospective study from the UK however shows a prevalence rate of 23.3% higher than the earlier studies¹². It specifically sampled women, who suffered severe obstetric morbidity during pregnancy and labour. A US clinic based study of women reported prevalence of 22%¹³.

Tools used for diagnosis of post natal depression

- ♦ CIS- Clinical Interview Schedule
- ♦ GHQ- General Health Questionnaire
- ♦ Self-rating depression scale
- ♦ EPDS- Edinburgh post partum depression schedule
- ♦ Hamilton depression scale
- ♦ Structured or semi-structured Clinical Interview Schedule (DSM)
- ♦ Semi-structured Questionnaire
- ♦ Schedule for affective disorders
- ♦ Anxiety scale
- ♦ Brief Disability questionnaire

Studies from the South Asian countries like India, China, Japan, and Fozhou have

reported a prevalence of postnatal depression to be in the range of 16%-37%. The prevalence of postpartum depression has been found to be comparatively lower i.e. 3.9% in Malaysia and 5.5% in Hong Kong. Studies from countries in the Mediterranean region have reported a prevalence rate of 21% and 27% in Lebanon and Turkey respectively, whereas in African countries it was found to be in the range of 10% to 37%. Recent prospective studies done in India show the prevalence of postpartum depression to be between 11-23%¹⁴.

However, different instruments have been used for data collection as well as for determining rate of depression among women. Though EPDS has been used in most of the studies, the list of tools used for diagnosis of postnatal depression given above depicts the varied range of tools used in these studies. Besides, there is variation in sample sizes and the time frame for follow-up in the postnatal period varies. The differences in the prevalence rates reported in these studies have to be understood against this backdrop.

Nature and course of depression in the post partum period: For some women childbearing heralds the start of prolonged emotional difficulties. In one study, 50% of the sampled 119 women were depressed by the time their babies were six months old¹⁵. Nine of these women were detected at 4 years to be still depressed, with 3 women being severely depressed. Of the 12 women who were depressed even in the first trimester of pregnancy, 6 consulted for depression in the follow-up post natal period of 1-4 years. Another study reported that of the 51 women who were depressed at 6 months in the postnatal period, 67% were considered to be chronically depressed. In this study, 14% of all mothers had chronic depression in the postpartum period¹⁶.

4.3 Postpartum Psychoses

Post-partum psychosis (PPP) is an experience of psychosis in the post partum period (schizophrenias or bipolar illness). Experiences are similar to the general categories of psychoses, including confusion, over-activity, distractibility, thought problems, mood swings and delusions being common. Hallucination, a prominent symptom in schizophrenia, is however considered rare in the post partum period. Mania may be experienced, though in a more benign form. Researchers have reported irrelevant speech, disorientation, incongruent emotions, distractibility and forgetfulness¹⁷.

Prevalence: As in psychoses in general, psychosis in the post partum period is rare, between 1-2 per 1000 deliveries¹⁸. Fathers may also be affected, a pre-existing illness being triggered off by the prospect of fatherhood¹⁹. A hospital study reported an incidence of 1.6 per 1000²⁰.

Nature and course: Women, who have never experienced psychoses before, may experience brief psychosis in the post-partum period, which may remit naturally following stabilisation of her psycho-social environment. They may not even be able to understand or explain their behaviour later on. However, for women who have had psychotic experiences prior to the pregnancy, the risk of relapse in the postnatal period is higher than during any other time. PPP is more common among women having their first child, occurring within one month of childbirth²¹. It may occur in women within six weeks of delivery for the first time, onset being within two weeks²². Postpartum mania seemed to be relatively benign in terms of length of episodes ranging between 1-3 months as compared to the duration of the typical mania, which was in the range of 3-6 months²³.

Summarising, we have known that in India, women are at double the risk for depression when compared to men. Emerging evidence in India, other south asian countries and in the developing regions, on prevalence suggests that depression is a matter of concern in maternal health care. In the next section, we examine the data on the causation of poor mental health during pregnancy, childbirth, and after.

End Notes

1. Nhiwatiwa et. al. 1998
2. He, et. al. 2000
3. Gautam et. al. 1982; Shah, 1979
4. Chandra, 2001
5. Yamashita & Yoshida, 2003
6. Kumar & Robson, 1984
7. Cox et. al., 1982
8. Chawla & Ramanujam, 2002
9. Areias, Kumar, Barros & Figueiredo, 1996
10. Pitt, 1968
11. Cox, et. al. 1982, O'Hara & Swain, 1996
12. Waterstone, et. al. 2003
13. Morris-Rush, et. al. 2003
14. Chandran et. al., 2002; Patel et. al., 2002
15. Kumar & Robson, 1984
16. Patel, et. al. 2002
17. Gautam, 1989
18. Hemphill, 1952; Tetlow, 1955; Pugh et. al., 1963
19. Shah et. al. 1999:p. 372
20. John, et. al. 1977
21. Vankar, 1977; Gautam et. al. 1982
22. Shah, 1979
23. Shah, et. al. 1999; Yogananda et. al., 1997

5. Causes of emotional ill health



There are multiple causes for women's emotional ill health during pregnancy and in the post partum period. The complex inter-relationship between physical health and mental health in this period of life is also evident in the literature. Social factors play an all-important role in the causation of poor mental health. In this section, we present the literature on the causes of emotional ill health during the pregnancy and in the post partum period.

5.1 General health conditions causing emotional ill health

Poor emotional health during pregnancy and in the post partum period may be due to general poor health status of women. Studies on the causality of depression in the post partum period have noted poverty and antenatal hunger as important factors. The broad picture about the poor maternal health of women was given above. Here, we discuss some common health conditions, which may cause emotional ill-health, during pregnancy and in the post partum period among the mothers.

A statistical association is invariably found between poverty and the prevalence of psychoses (schizophrenia). Whether this association reflects the social stigma of psychotic persons, which renders them jobless, homeless and poor over the years, or whether it reflects the overall health and nutritional deficits among poor people is an unresolved issue. A considerably high number of patients (74%) in a clinical sample reported the stress of physical illness either during antenatal period in the form of infections, toxæmia, post-partum haemorrhage or other medical conditions or illness¹. A high level of infections was reported by an early study in the Indian

context². Besides 25% women also reported having a history of dysmenorrhoea or irregular menstrual cycles in the period prior to ill health. The depletion of essential vitamins (B and E) as well as nutrients (notably Ca⁺, Fe⁺) in the post partum period, along with the greater incidence of infections, may also cause psychotic experiences.

5.1.1 Anaemia

A marked association is noted between iron deficiency, mental health and general well being in women of childbearing age³. Anaemia, as noted above, is very common during pregnancy and in the postnatal period⁴. It may present itself with psychiatric and psychological effects, including depression. Mental health effects of severe anaemia include depression, impaired learning ability, fatigue, lack of interest, sleep problems, lack of concentration, loss of libido, and poor memory. However, the studies on psychiatric problems occurring during pregnancy and after have not considered the base line status of women's health or reproductive health.

5.1.2 Hormones and PND

Medical researchers in India, have repeatedly stated that hormonal changes during the puerperium and in the post partum period have made women more vulnerable to depression⁵. However, the "hormonal theory of mental illness" has been attacked as one more way by which women's bodies, always considered inferior and sickly, is the cause for all her problems⁶.

Early studies⁷ on the influences of hormonal changes in causing post-partum depression drew a blank, or gave confusing



results. A review found little evidence for the hormonal basis of post partum depression⁸. Research since the 1990s have shown the complex biological linkages between the endocrine and the central nervous systems. Here, we present evidence on the linkages between hormones and poor emotional ill health, especially depression, in the post-partum period.

Researchers have proposed a *life cycle approach* linking differential mood sensitivity at different stages (menstruation, childbirth, menopause, post-menopause) with hormonal change^{9,10}. Others refer to a "chronobiological" understanding of "female-specific mood disorders"¹¹. These studies have been done in the western context. Indian data is absent on the topic¹².

Table - 4

Findings on the linkages between hormones and emotional problems in the post partum period

Author, date	Aim of study	Method	Findings	Conclusion
Ahokas, 2001	To study estrogen deficiency in severe PND	Serum estradiol concentration study of 23 women with MDD on ICD-10 admitted to psychiatric emergency unit	All women with severe depression had a below normal rating. In 16 out of 23 women, the range was below threshold value for gonadal failure	Role of estrogen deficiency in post natal depression is noted
Bloch, 2000	To study the simulated effects of hormone withdrawal on mood in women with a history of PND	Controlled study of mood change by simulating pregnancy like hormonal (progesterone and estrogen) variation in 8 women with a history of PND	All women with a history of PND showed mood change on daily ratings during hormone withdrawal	Direct evidence supporting involvement of reproductive hormones in post-natal depression in some women
Harris, B. et. al., 1994	To study association between mood and levels of progesterone / cortisol during perinatal period. To determine if hormone withdrawal after delivery causes post partum blues	Prospective study of saliva concentrations of progesterone in 120 primiparous women 2 weeks before delivery upto 35 days postpartum without marital, S-E or medical problems	High post partum mood scores were associated with -higher progesterone the day before delivery -lower progesterone after delivery compared to women without post partum blues Significant difference in cortisol concentrations	Post partum blues is linked with hormone withdrawal following delivery
O'Hara et. al., 1991	To determine the linkage between hormones and PND	Controlled study of 182 child bearing women	Low estrogen level was linked with PND	Estrogen may have a role to play in PND

Analysis: The studies suggest that there is an association between hormone withdrawal, hormone deficiency and post-natal depression. Whether hormone deficiency, and hormone withdrawal, causes the depression, or whether depression has an independent effect on the hormone level is a chick and egg story. Estrogen deficiency in post partum depression has been noted over multiple studies. The role of other hormones in depression is inconclusive. Associations with cortisol and progesterone have been reported.

Limitations: The western studies linking hormones with depression in the post partum period are all recent. Findings are tentative at this stage. Conclusions drawn so far, are mainly clinical and statistical. Deeper explanations linking the relevant physiological systems are in the initial stages of formulation. Samples have been very small and meta-analytical data is not available. The NIMH study was unique, in that it set up a simulated hormonal environment, giving direct evidence of mood change with hormone withdrawal. The studies were all focussed on the antepartum and post partum period, with a symptom relief approach, and thus reported only short-term effects.

5.1.3 Thyroid dysfunction

Most endocrine disorders are usually experienced in the early course of the disorders as a psychiatric problem. The psychiatric symptoms may appear to get worse and physical symptoms may emerge only at a late stage. The common medical conditions misdiagnosed, as psychiatric problems in women are notably, thyroid, hormonal and other endocrinological problems¹³. As is evident from the table below, thyroid problems often manifest with psychiatric symptoms. Pregnancy is associated with alterations in thyroid function¹⁴. After diabetes mellitus, thyroid

dysfunction is the commonest endocrine disorder in pregnancy. Hypothyroidism is the most common dysfunction noted. Post pregnancy changes in thyroid status are common, resulting in post partum blues¹⁵. However, another study found no connection between thyroid status and PND¹⁶. A study noted that mothers on treatment for thyroid problems should not breastfeed¹⁷. Hyper-parathyroidism may manifest as fluid personality changes, anxiety, confusion, depression, psychosis, paranoia as well as obsessive-compulsive behaviour¹⁸.

Table - 5
Psychological effects of Thyroid dysfunction

Hypothyroidism	Hyperthyroidism
Poor short and long term memory	Increased tension
Poor concentration	Restlessness
Slow concentration	Agitation
Lack of interest	Poor recent memory
Fatigue and weakness	Not able to relax
Aches and pains	Flight of ideas
Depression	Fatigue and weakness
Poverty of speech	Insomnia
	Pressure of speech
	Excitability and irritability
	Emotional shifts
	Severe anxiety

5.2 Psycho-social causes for depression

Studies have shown that life stresses can cause post-natal depression. Here, we present a list of studies, including the Indian studies, that have linked psycho-social risk factors with an onset of depression during pregnancy and in the post partum period.



Socio-economic factors

Housing problems
Financial difficulties, Poverty
Antenatal hunger
Social class (for men)
Education
Maternal employment

Issues of relationship

Problems with mother-in-law
Marital conflict and violence

Issues related to childbirth per se

Perceived stress of childbirth
Doubts about having the baby, unplanned pregnancy, pre-term birth
Childbirth and its immediate psychosocial sequelae
Protracted labour with lack of control over the situation

Exposure to severe obstetrical complications during pregnancy

Breast feeding the infant
Infant hospital admission

Lack of support available to the women

Lack of or reduced social support
Lack of practical support and emotional support from partner and mother
Lack of physical help at home

Gender of the infant

Birth of a daughter when a son was desired
Gender of the infant

Other

Negative life events
Bereavement

Some studies, too few in number in the Indian context, have considered the psycho-social context of being a mother, and have included important aspects for further investigation.

5.2.1 Son Preference

In the list given above, the cultural expectations regarding the outcome of pregnancy, especially the preference for sons, emerges as a notable cause for emotional ill health among women in the post partum period. A study in Nigeria had reported that the fear about outcome of pregnancy resulted in poor emotional health during the pregnancy period²⁰. *Dais* in India have reported that a woman, who is under pressure to bear a son, can "die of shock" upon hearing that she has birthed a girl child²¹. The *dais* take all precaution to deliver this news gently and at the right time, and not immediately after the baby is birthed. They try to make the woman understand and accept the birth of a girl child.

What we know about sex preference

The 2001 Census shows that the sex ratio (number of female per 1,000 male) in the age group 0-6 has fallen from 945 in 1991 to 927 in 2001.

The NFHS-2 (1998-99) notes that prenatal selection and female disadvantage in child mortality are both responsible for the very low 0-6 sex ratio of Haryana, Punjab, Delhi and other north Indian states²².

The sex ratio decline among children in the 0-6 age group is sharper in the urban areas than in rural in most of the states.

The decline in the sex ratio is no longer confined to the north of Narmada, but has moved considerably southwards i.e. Gujarat, Maharashtra, certain parts of Orissa. Among southern states Tamil Nadu presents alarming trends for both 1991 and 2001²³.

The several states of India-Maharashtra, Gujarat, Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh, Punjab, Haryana, Tamil Nadu- gender selective abortions of female foetuses have increased among those who want small families of 1-3 children²⁴.

5.3 Depression during the pregnancy period

The general mental health status of the woman during the pregnancy may determine her mental well being in the post-partum period. Women who suffer from antenatal depression are at greater risk to suffer from depression post natally²⁵. More than half the women who suffered depression in the post partum in a study had onset of depression in the antenatal period²⁶. An Indian study reported that 46 women from amongst 252

women who had antenatal depression continued to be depressed at 6-8 weeks post natally²⁷. Another retrospective study compared new and repeat occurrence of depression and other diagnoses of mental illness in fathers and mothers²⁸. Fathers did not show a significant variation with time. In mothers, there were nine new psychotic episodes in the 9th trimester, of which seven came under psychiatric care within three weeks of delivery. Depression in the last trimester was a strong predictor of depression in the postpartum period. Financial hardship

was a risk factor that differentiated women with ante partum depression, who continued to be depressed after delivery from those who recovered. Occurrence of depression in fathers if spouses were depressed during pregnancy or post-natally has been reported.

5.4 Previous loss of pregnancy

Experiences of women in pregnancies prior to the present one may determine her emotional well being during and after the present pregnancy. Wretmark reported the experiences of a few women from amongst the 79 whom she had interviewed, who had experienced perinatal loss. She writes that, "several of the women reported having nightmares about the lost child or about the circumstances surrounding the loss. One woman was having recurrent dreams of the doctor asking her why she was crying. Another woman had nightmares about what the child looked like, that it was shaped like a wasp, or that she has been through a terrible delivery and had abandoned the child and was being accused of this. A third had nightmares in which she was standing all alone on a mountain and did not know how to get down"²⁹.

A previous loss of pregnancy (neo-natal loss, still birth or miscarriage) plays an important role in determining the mental health status of women up to the time of and during the following pregnancy. A small number of women who have suffered pregnancy loss may be at risk for poor mental health in their future pregnancies. Studies have reported that a pregnancy loss in itself is a stressful event, giving rise to a marked deterioration in a woman's mental health. This result has been reported across studies, irrespective of the scales used. A number of such women actually contemplated MTP, or had ambivalent feelings towards motherhood, in the western context. A study reported that

women who had faced pregnancy loss experienced greater depression, anxiety and somatisation up to 6 months after their loss. Their mental health improved and was comparable to women in general at 1 year of follow up³⁰. A study showed that families who had recently experienced neonatal death or sudden infant death syndrome (SIDS) experienced more psychological symptoms than control families. Mothers were more affected than the fathers, including greater anxiety and depression³¹, even though fathers may also experience poor mental health. Greater risk for anxiety, depression, obsessive compulsive disorder and trauma symptoms have been reported for women with abortion, miscarriage or perinatal loss³². Indian studies were not found, despite the fact that infant mortality rate and pregnancy loss is high. The mental health impact of sex discrimination and sex selective abortions on women's mental health is not known. We found one qualitative study³³, which found that women who underwent sex selective abortions reported guilt and depression.

Previous experiences of termination of pregnancy, loss of child and miscarriages is associated with post-natal depression. An unresolved grief reaction has been suggested as explanation³⁴. A study found that women with a previous history of stillbirth were significantly more anxious and depressed than controls who had no such experience³⁵. A risk to suffer depression may exist among women during a pregnancy after stillbirth³⁶. A recent study noted that women are more vulnerable to trauma syndromes (post-traumatic stress disorder) in a pregnancy following stillbirth. The risk of psychological trauma is higher if the conception occurred soon after the loss of child³⁷. Vulnerability to depression may be related to the time elapsed since the stillbirth, with recently bereaved women being at significantly more risk. Another study noted a higher level of anxiety related to outcome of



pregnancy among pregnant women who had experienced a late pregnancy miscarriage³⁸. The study also noted that women's reported attachment to the child pre-natally, was less compared to control women who had experienced no such loss.

Indian data on this topic, or more broadly, relating to reproductive health history and its causative role in post-natal depression, is not found.

5.5 Post natal depression and childbirth

The literature is witness to a debate whether post-natal depression is a distinct form of psychiatric problem peculiar to and limited to childbirth, or whether it is a general psychiatric condition manifest in the post partum period. "PND", for some, describes the presence of a major depressive disorder, in the period after childbirth³⁹. The DSM-IV is in consonance with this view, and is an accepted view in clinical practice⁴⁰. The view does not give an etiological role for childbirth *per se* in the onset of depression.

Others who deter from this view make the observation that a significant number of "new cases"⁴¹ of depression are reported postpartum. They say that women with antenatal depression may or may not develop depression post natally. This would be predicted, if it were true that PND is a post partum expression of depression. Also, they say, for some women, post natal depression seems to exist only during and for the time of post partum. Neither did they suffer from depression before, nor did a depression recur after, the remission of the post partum experience of depression. These researchers argue that the reasons for the postnatal increase are a consequence of the physical and psychological stresses of childbirth *per se* and its attendant new relationships, including women's doubts

about their ability to become mothers against the standards they have set for themselves.

5.6 Quality of service and mental health

The question whether trauma, anxiety and depression in the post partum period can be linked at least in part with the trauma associated with poor quality health care is an important one. A positive association has been noted between the quality of psychological support given during childbirth and a reduction of labour⁴², quick recovery from childbirth, enhanced relationship between mother and child and reduction of postpartum depression⁴³. A study reported 4 case studies giving a clinical picture of women with stress reactions after delivery. Each of the deliveries was experienced as traumatic, one because of anaesthetic failure, one, because the baby suffered a cardiac arrest, and two, because of poor pain control. Each had an early onset of post traumatic stress disorder (PTSD) symptoms, within 48 hours of delivery. Women developed feelings like protracted terror, reliving memories of the painful operation scene, and avoiding contact with the baby⁴⁴.

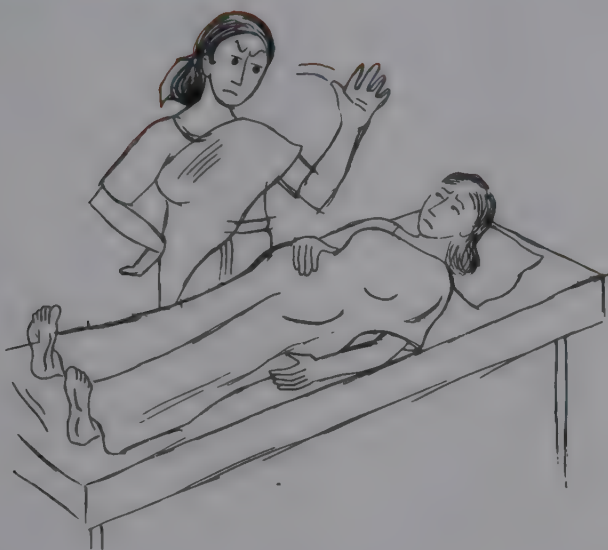
Studies in low-income countries, including India, have shown that women expressed terror, anxiety and fear at the thought of referral to the hospital. Some of the reasons for it are-

- ▶ fear of medical care and staff
- ▶ high costs
- ▶ fear of death
- ▶ fear of disability and illhealth
- ▶ poor quality of care
- ▶ fear of surgery
- ▶ high risk of death associated with caesarean section in the community⁴⁵.



The fear of having to rely upon medical care during pregnancy and obstructed labour lead many women to practice 'eating down' in the last trimester⁴⁶. As discussed earlier, there would be an impact of this on women's nutritional status and mental health.

5.7 Attitudes of carers and mental health



Literature on the experiences of women during delivery and childbirth also brings to the fore the relationship between the attitude of health care providers and its negative impact on the mental health of women. A study surveyed views of women regarding the care received during labour in a teaching hospital in New Delhi. Of a sample of hundred women, more than half reported being unsatisfied with the labour room⁴⁷. A dim view was also expressed by a significant number of women regarding the behaviour of doctors, nurses and paramedical staff who handled them.



- ❁ Women reported feeling *worried and anxious* due to the lack of information provided to them during the process of childbirth.
- ❁ Women, in a study conducted in Bangladesh, reported feeling *like objects*.
- ❁ Women underlined the *lack of space for communication* and the *impersonal way* in which they were treated during antenatal consultations.
- ❁ Women reported their *sense of frustration* and *constant humiliation* during the time of birth.
- ❁ Midwives in the hospitals were often described as being *difficult, impatient, humiliating* and not inclined to give women the *respect and comfort* they needed.
- ❁ In Ghana, the *hostility* of the hospital personnel and women's *fear of being mistreated* by the attendants is one reason why women are hesitant to attend obstetric referral centers⁴⁹.

Key points

- ❁ Women's general health status (anaemia, hypothyroidism) may affect her emotional health, during the pregnancy and after.
- ❁ Evidence relating to hormonal deficiency in the post partum period is scanty.
- ❁ There is evidence for the psycho-social causes of post partum depression.
- ❁ Evidence relating to quality of service, attitudes of carers and mental health is scanty and needs to be developed.



🐼 Women who gave birth in public and military hospitals rated their labour and birth nurses less helpful than those who gave birth in private hospitals. Women who gave birth in private hospitals perceived their labour less stressful⁵⁰.

Summary: A host of biological, psychological and social causes may lie at the root of women's poor mental health during the pregnancy and after. Notable among the social causes are son preference and domestic violence. Biological causes discussed herein, refer more to the poor health status of the women due to hunger, poverty and malnutrition (such as anaemia) and other medical and gynaecological conditions (such as hypothyroidism). Nutritional deprivations may cause emotional ill health during pregnancy and after. In this review, we have not considered imbalances in the neurobiological system (such as lack of serotonin), as this too constitutes important biological evidence. We have also not considered explanatory psychological theories about depression (such as ambivalence about being a mother) during the pregnancy and in the post partum period.

End Notes

1. Shiv Gautam et. al. 1982
2. Bhattacharya & Vyas, 1969
3. Patterson, et. al. 2001
4. Rao, 2003; Roy, 2003
5. reviewed in Davar, 1999 : pp.79-81
6. *ibid.*
7. Nott et. al. 1976
8. Dennerstein et. al. 1993
9. Joffe and Cohen, 1998
10. Other reviews include Epperson, et. al. 1999, Hendrick, et. al. 1998, Halbreich 1997 and Steiner, 1998
11. Parry & Newton, 2001
12. An emerging medical field of "psychoneuroendocrinology" represents integrated knowledge coming from psychiatry, neurobiology and endocrinology. See Lazarus, 1993; Ader and Cohen, 1993.
13. Klonoff & Landrine, 1997
14. Sridhar and Nagamani, 2003
15. Ijuin, et. al. 1998
16. Oretti, et. al. 2003
17. Sridhar & Nagamani, 2003
18. Thys-Jacobs, 2000
19. This information has been culled out of data presented by the following studies: Areias, et. al. 1996; Chandran, et. al. 2002; Cox et. al. 1982; Cox, et. al. 1993; Kumar, and Robson, 1978; Paykel et. al. 1980; Patel, et. al. 2002; Pitt, 1968, Paykel et. al. 1980; Oweis, 2001; Stuchbery, et. al., 1998; Verdoux, et. al.; 2002.
20. Aderibigbe, et al 1993
21. Chawla & Ramanujam, 2002
22. Sudha & Irudaya Rajan, 2003
23. Agnihotri, 2003
24. Patel, 2003
25. Areias, et. al. 1996; Chandran et. al. 2002; Patel et. al., 2002
26. Areias, et. al. 1996; Chandran, et. al. 2002
27. Patel et. al., 2002
28. Kendell, 1978
29. Wretmark, 1999: p. 33
30. Janssen, et. al. 1996
31. Vance, et. al. 1991
32. See Boyle, et. al. 1996; Geller, 2001; Neugebauer, et. al. 1997.
33. Gupte, et. al.
34. Kumar & Robson, 1984; Howard & Martha, 1972
35. Hughes, Turton & Evans, 1999
36. Carrera, et. al. 1992
37. Turton, et. al. 2001
38. Armstrong, & Hutti, 1999
39. Patel, et. al. 2002
40. Shah, et. al., 1999
41. Cox, et. al. 1982; Cox, Murray & Chapman, 1993; Kumar & Robson, 1984
42. Keirse, et. al., 1989
43. Klaus, et. al. 1986 and 1993; Sosa, et. al. 1980
44. Ballard et. al. 1995
45. Ngoc Nga & Marrow, 1999; Kaosar & Sabina, 2001; Kendell, 2001
46. Ngoc Nga & Marrow, 1999
47. Sharma, Malhotra, Joshi & Arora 2003
48. Kaosar, and Sabina, 2001
49. Eades, et. al. 1993
50. Oweis, 2001

6. Maternal mental health and children



In this section, we will explore the literature on the impact of maternal well being on children. To pose the issue in this way, is itself problematic, because it may reinforce the sense that mothers are to blame for their children's ill health. This bias, in fact, reflects the way in which research has proceeded. The topic of the impact of poor mental health on the woman *per se* is not visible in the literature.

6.1 General health status

Maternal health, and her mental health, influences the neurological development of the foetus and the infant. A prevalence of 1% to 3% mental retardation is noted in developing countries, with profound retardation in 0.3%¹. Reported causes are poor obstetric and gynaecological care, birth traumas, brain injury, early brain infections and malnutrition. The following can cause neurological problems among children:

1. Iodine deficiency
2. Nutritional deficiencies in the mother (vitamins, minerals, essential fatty acids)
3. Unhygienic procedure of surgery
4. Obstetric brain trauma and other complications during delivery (forceps, long labour, muconeum staining, anoxia at birth)
6. Substance abuse during pregnancy

6.2 Emotional health

A growing psychiatric literature exists on the effects of maternal depression on infant development². The literature suggests that maternal depression affected the mother's interaction with the infant and on the infant's social and emotional functioning, as well as infant growth and development. Low birth weight of babies of depressed mothers has been reported in the Indian literature³. Maternal depression may result in functional disability in the mother. Women with postnatal depression are likely to experience persistent feelings of inadequacy and hopelessness⁴, increased propensity to terminate breast-feeding early⁵ and may have difficulty with infants' demands for attention⁶. Infant behaviour, such as irritability, may in turn determine maternal response.

Effects of maternal depression on infant

- ▶ Poor developmental growth
- ▶ Poor motor development
- ▶ Impaired infant cognitive development
- ▶ Poorly developed capacity for mental representation
- ▶ Poor performance on cognitive tasks, especially boys
- ▶ Poor emotional adjustment
- ▶ Poor show of affection
- ▶ Poor social skills, less sociability
- ▶ Poor concentration
- ▶ More negative responses
- ▶ Sleeping and eating problems
- ▶ Temper tantrums
- ▶ Separation difficulties
- ▶ Frank behavioural disturbance in boys

Sources: Cooper and Murray (1998); Murray and Cooper (1996)

Table - 6

Phenomenological aspects of maternal aggression towards the child

Feelings	Thoughts	Behaviours
Dissociation	That the child is not hers Hallucinations	Withdrawal Confusion Frank psychosis
Detachment Emotional numbness	Forgetfulness Amnesia	Neglect Withdrawal
Attachment	Fear of separation from the child	Controlling behaviour Overprotectiveness Cuckolding Hyper vigilance
Insecurity, anxiety, fear and guilt	Intrusive thoughts (of some harm coming to the child) Of not being a good mother Of being uncaring	Compensating or compulsive behaviours Agitation, restlessness Disturbed sleep
Hopelessness	Of not having any control Of double suicide	Suicidal ideation and behaviour
Hostility	Ideas of harming the infant	Verbal threats Shouting
Aggression	Of harming the child	Hitting, smothering, other physical harm
Explosive Rage	Of murder	Filicide

6.3 Maternal aggression

A study was found in the Indian context, on maternal aggression towards the infant ⁷.

Nearly half the new mothers diagnosed with severe post partum psychiatric disorder of a hospital sample from Bangalore had infanticidal ideation and a third reported infanticidal behaviour ⁸. Mothers, included in the study largely hailed from rural areas, and were diagnosed as severe depressive, bipolar or any other psychotic disorder in the inpatient psychiatric facility. The study is not located in the community, and therefore, conclusions should be viewed with caution.

Explanations: In interpreting the above factors, we require to balance an understanding of the mother's psycho-social situation, and the disability brought on by her poor emotional health, against the developmental situation as well as the needs of the infant. Four inter-related causal mechanisms are suggested for causing these effects:

1) The adverse environment in which a woman has to exercise her caring functions as a mother: inequality, cultural, economic, marital or other difficulties, violence. The difficult circumstances may entrench an enduring psychological status of alienation, desperation, hopelessness and poor mental health for the mother, depleting her capacity for giving care.

2) Parenting difficulties brought on by the depression, whereby the mother's disability acts as a barrier in appropriate emotional attachment with the child and in giving the necessary stimulation and care.

3) The infant's direct exposure to maternal depression and the impact of that on child development. This explanation is particularly relevant in the context of maternal aggression and the risk of harm to infant.

4) An infant needing extra-ordinary care or a behaviourally difficult infant.

Summarising, we may say that depression among mothers may impact the general health and the psychological well being of children. Impact studies have not considered the social environment of mothering, and have treated the mother-child dyad as an isolated unit.

Parental impact including the fathers' role has not been considered. Given evidence suggests the short term impact of maternal depression on the child. There is evidence of maternal aggression towards the child during depression. However, the possible reasons for the aggression (multiple pregnancies, too many children, domestic violence) have not been considered.

End Notes

- 1) WHR, 2001
- 2) *Reviewed extensively in Brockington, 2000; Murray and Cooper, 1997, 1996; Weinberg and Tronick, 1998; Patel, et. al. 2002*
- 3) *Patel, et. al. 2002*
- 4) *Godfroid & Charlot, 1996*
- 5) *Cooper et. al., 1993*
- 6) *Seeley et. al., 1996*
- 7) *Chandra, et. al. 2002*
- 8) *ibid.*

7. Infertility



*"To be infertile is a traumatic, invisible kind of loss, which causes quite a lot of psychological suffering, particularly during the most intensive period of investigation and treatment. Because the medical establishment, as well as cultural norms, tend towards intensified interventions in order to produce a viable pregnancy, some of this suffering is actually induced by entering into the medical maze. ... The stress of being on a waiting list, the pain of having your sexual and reproductive performance evaluated by a laboratory, the ethics and economic constraints of modern treatment methods, and the uncertainty about the outcome every time you try, contribute to prolonged suffering"*¹.

The social construction of gender and body determines a woman's position in a society. We described in Section 1 above, the normative expectations built around motherhood. The corollary to this cultural oppression is the cultural backlash against childless women. Childlessness causes much anguish to a lot of men and women. Reference has been made to the biblical story of Abraham's wife, Sarah, who allowed her slave-girl Hagar to bear a son for her husband to get compensation for herself and taking away any reason for him to divorce her². Women often bear the brunt of childlessness, by being stigmatised and humiliated, and by being largely held responsible for it. In this section, we present data linking infertility with mental health.

7.1 Estimates of infertility

Estimates of infertility have ranged from 1% to 33%. A multi-centric study done between 1980 and 1986 in Armenia, Benin, Brazil, Cameroon, China, India, Pakistan, Tanzania, Thailand and Vietnam, found that infertility ranged from 1.1% to 3.6% in Asia and 1.9% in Brazil. Prevalence was higher in Africa (up to 12% in Cameroon)³. Primary infertility rates were reasonably constant across age groups. The rates of secondary infertility in India, Thailand and Vietnam was found to be in the range of 7.5-15.3% while the rate in Pakistan was higher at 24%. The rates in Benin, Cameroon and Tanzania ranged from 7% to 33%. Recent NFHS

estimates that infertility is 2.4% among currently married women over 40 in India. A community-based study conducted in rural Gujarat, India, observes an infertility rate of 7%⁴.

7.2 Causes of infertility

- ♦ Infections explained upto 27% infertility in developed countries upto 64% in the sub-Saharan centers (Cameroon, Kenya, Nigeria and Zambia), and upto 29% and 44% in the Asian and Latin American centers, respectively⁵.
- ♦ Endocrine disturbances explained approximately 1/3rd of female diagnoses in the developed countries, the Asian and Latin American centers, but was less in the African centers.
- ♦ Among men, accessory gland infection rates and varicocele were higher in the Latin American and sub-Saharan centres.
- ♦ A study reported that infertility patients had a greater history of surgery and induced abortion⁶.

The data shows that infections are a major cause of infertility.

7.3 Culture, fertility and mental health

A study in Ghana showed that an infertile woman is labelled as "abnormal" or "incomplete". Motherhood was synonymous



with being a “proper”, happy and fulfilled woman. Prospects of social security and inheritance within the Ghanaian family were better for children, who had issues and who ensured a couple’s security in old age⁷. Childless women were treated as outcasts⁸. Co-wives or friends would not run errands for her, this being an important privilege of elders. The children of her peers could get away with calling her “sister” - an insult - since a woman gets her identity in the community by being called as the “mother of so-and-so”. Similarly her in-laws may call her “*Iyawo*” (wife), a term of endearment for a young bride, which becomes an insult when hurled at an older, but childless wife. A childless woman cannot claim for inheritance also.

A ceremony called *Odun Oba* (festival of kingship) is celebrated in Ondo. It is one in which the king’s wives and children are part of the processions and rituals, which symbolise prosperity. Childless wives are banned from the ceremony. All mothers must strap their babies on their backs and those with older children must substitute dolls⁹.

Among the Nayar community in Kerala, India, a woman who has not borne a child is considered to be an inauspicious guest at weddings and sacred rituals. She suffers social ostracism, and as a “barren” woman she is cut off from networks of sustenance and support. Ritual practices may reinforce this prejudicial view. Neff wrote that, “while it is the infertile woman who undergoes the most intense personal suffering, the ritual of *pampin tullal* (which is performed in rural Kerala for remedy of the curse of serpent deities and is primarily manifested in infertility of one or more *taravatu* members) shows that her natal kin are also held responsible for infertility and this responsibility is traced matrilineally”¹⁰. The infertility of one or more of the community members is seen as a factor for causing disharmony in the *taravatu* and as a threat to the prosperity of the total kin group.

Infertility is not merely a reproductive illness, but a social curse for both men and women, especially so for the women. Most ritual practices in India, and elsewhere, celebrate fertility. Social festivals and rituals that celebrate prosperity of the community have close linkages with the socio-cultural understanding of the fertility of women. This in turn determines their inclusion or for that matter, exclusion of the women in these processes. Thereby, in the process of dealing with the emotional aspects of infertility, it is essential to take into consideration, the socio-cultural framework.

Transfer of sexual rights to the husband’s brothers or other males often camouflages infertility among the men. In a study¹¹, women reported that to produce a pregnancy where male infertility was suspected, transfer of sexual rights to another male of the husband/partner’s family or a healer was a practical remedy. This was done to hide the man’s infertility and to protect his honour.

7.4 Consequences of childlessness

Childlessness leads to stigmatisation, divorce, abuse, resentment, loss of social status and self-esteem¹². An infertile woman was likely to attempt suicide as a result of despair, shame and ill treatment received in her marital home and outside¹³. A study of suicides conducted in the city of Jhansi reported that failure to have children was responsible for suicide in 4.3% cases¹⁴. A 22 year-old female having remained childless even after 6 years of married life, poisoned herself to death. A 24-year-old male got run over by train because his friends teased him for not having children. A 20-year-old female burnt herself to death because her in-laws called her *Banjh* (barren) and advised her husband to get remarried. A childless couple aged 41 and 37 years shot themselves after writing a joint suicidal note.



7.5 Impact of infertility on the couple's marital relationship

The reality of childlessness may have implications on the marital relationship of the couple. Infertility patients had poorer marital relationships compared with fertile women¹⁵. An Indian study examined the sexual and marital functions as perceived by 48 women partners of childless couples, through referral from gynecologists¹⁶. A majority of the participants experienced no problem in the marital relationship.

However, women from rural areas, those living in joint families and married for 6 years had more marital problems. One third of the women reported deterioration in communication, affective expression, problem solving, and intimacy. A study conducted in AP among 332 women using a detailed questionnaire, indicated the conflicts within marital relationships because of childlessness¹⁷. 12% women reported that their husband already had more than one wife. 4.1% women reported that their husband was having relations with other women. 3.8% of the women reported that their husband wanted divorce. 15.9% women said that their husband talked about taking a second wife. However, almost 71.5% women reported a harmonious relationship.

7.6 Violence and childlessness

Childless women face physical and emotional violence in their relationships, both marital and communal. The AP community study reported that almost 38.9% experienced mild forms of violence with 18.4% women, experiencing severe and 7.3% experiencing very severe violence¹⁸. Almost 18% women experienced rude behaviour at ceremonies. Nobody wants to see the face of an infertile woman in the morning, because it is believed that it will spoil their day¹⁹. A Mumbai study looked at the records of women, who contacted the Special Cell for Women and

Children for protection from marital violence and also used a questionnaire to gather data from a variety of secondary sources²⁰. Of the total 2930 women, 0.8% women perceived their childlessness and 0.3% women perceived having only female child as the reasons for marital violence.

7.7 Psychological morbidity and infertility

The experience of childlessness may lead to intense grief and hopelessness. The quality of the loss may be experienced in many different ways.

A study aimed to find the rate and nature of psychopathology among women diagnosed with infertility and associated factors²¹. 29.7% women in the infertility and 2.7% of the control women who had no such diagnosis were identified as having a psychiatric problem. A large proportion of the infertility patients who developed psychopathology (63.6%) versus those without psychopathology were married to polygamous men.

An Indian study aimed to find the relationship between infertility and psychological morbidity²² among couples who attended a government hospital infertility clinic. 70% of the males and 57.5% females among the 40 couples studied, had psychiatric disturbance as opposed to 15% and 25% respectively, in the control group. The study notes high morbidity among such couples, with a relative risk of developing morbidity being 7 times more than the general population. Males in the study group were at greater risk of developing psychiatric problems. It was found that males had 3 times more risk than females. 75% of the infertile couples married for more than 5 years were psychologically disturbed.

The commonest diagnosis of clinical psychiatric evaluation was neurotic depression followed by anxiety.

7.8 Treatment seeking for infertility

A study examined treatment-seeking behaviour of 225 childless couples using focus group sessions and questionnaire, in the city of Mumbai²³. Reasons given for treatment seeking were the following:

- 🐼 Pressures and anxiety of elder members
- 🐼 Rude comments or teasing by people in the society
- 🐼 Harassment and nagging by in-laws
- 🐼 Instigation of their husband by in-laws for remarriage
- 🐼 Insistence by friends and neighbours for early consultation of doctors
- 🐼 Late marriages were additional causes mentioned for early initiation of treatment.

Today, there are a number of reproductive technologies used for treating infertility. Some of these are donor insemination (DI), in vitro fertilisation (IVF), surrogate motherhood, and surgery.

Women had used or were using one or more biomedical treatments²⁴. Besides, the couples also resort to various traditional alternatives to overcome infertility, such as spiritual healers, babhas, etc. Such places offer succour and solace to the emotionally suffering women. A study in rural Gujarat²⁵ reported that some women did not conceive because of the magical powers used by jealous women. Similarly childlessness was looked at as paying for deeds of their past life.

The availability of new medical interventions makes it harder for the women not to try them²⁶. These bio-technologies entice men and women with hope and

promise, but not always on realistic grounds. A woman from a support group for infertility has written: "Powerful desires to have a baby continues in each of us in our group. While it seems that we have all given up on having our own biological child, we have all begun to consider donor egg procedures or adoption of both. Perhaps some of us will come to closure with no child at all"²⁷.

Women, who do not benefit from interventions, suffer emotionally. A failure of induction tempted doctors to increase the dosage of hormones, which produced a variety of side effects such as headache, fatigue, nasal congestion and psychological symptoms such as depression, negative impact on their self-confidence self-esteem and health²⁸. Couples experienced anxiety, worries, frustration and doubts when the treatment was prolonged and wondered why they could not succeed. Each month, some couples fantasised a pregnancy, which was followed by grief and depression after noticing the failure of treatment. Besides, the constant medical interventions make women vulnerable to the social and cultural politics of infertility. Another woman attending an infertility support group reported, "tonight, in this meeting, there is no humour that might support us. No one rises above her misfortunes, even for a moment, to joke about enslavement to our wombs or these intricate out-of-the-body odysseys to get egg and sperm to join. No one mentions adoption"²⁹.

Summarising, there are biological, psychological and social factors that may well determine the mental health of childless or infertile men and women.



End Notes

1. Sundby, 1999: p.16
2. Wretmark, 1999
3. As reported by Rowe, 1999. The UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, based at WHO in Geneva, conducted a Programme with major emphasis on the introduction and validation of tertiary health care services for the investigation of the infertile couple. The infertility studies were a part of the program. From 1980 to 1986 the Programme carried out a clinical study involving 8500 couples in 33 centers in 25 countries throughout the world using a standardised protocol for the investigation and diagnosis of infertile couples.
4. Joshi, et. al. 2000
5. Rowe, 1999
6. Aghanwa, Dare & Ogunniyi, 1999
7. Yebei, 2000
8. Pearce, 1999
9. noted in Pearce, 1999
10. Neff, 1994
11. Yebei, 2000
12. Yebei, 2000
13. Pearce, 1999
14. Shukla, Varma & Mishra, 1990
15. Aghanwa, Dare & Ogunniyi, 1999
16. Chandra, et. al. 1991
17. Unisa, 1999
18. Unisa, 1999
19. Khan, et. al. 2001
20. Dave & Solanki, 2001
21. Aghanwa, Dare & Ogunniyi, 1999
22. Thara, Ramachandran, and Hassan, 1986
23. Mulgaonkar, 2002
24. Yebei, 2000
25. Khan, et. al. 2001
26. Anonymous, 1999. This article describes the experiences of women coping with infertility through a support group.
27. Anonymous, 1999: p.94
28. Mulgaonkar, 2002
29. Propp, 1999: p. 42

8. Violence



The United Nations Declaration on the Elimination of Violence against Women defines violence against women as "any act of gender-based violence that results in, or is likely to result in physical, sexual or psychological harm or suffering to women". Violence impacts women's physical health, reproductive health and mental health, some data on which we present in this section.

8.1 Prevalence of violence

According to the WHO (1997), 16% to 52% of women globally, had been physically assaulted by an intimate partner at least once in their lives. A review of prevalence shows that 44% of women have been subjected to rape or attempts to rape, 21% women are battered in marital relationship in UK and 16% women report incestuous abuse before the age of 18¹. 20% in US are raped². 42 to 90% of non-industrial societies reported rape³. 31% women face violence in current relationships in US and the prevalence of child sexual abuse ranges between 38% to 67%⁴. Similarly one out of ten women in Canada and one out of six in the States are abused in relationships⁵.

A recent study⁶ estimated the prevalence of domestic violence in India, along with associated factors. 9938 women between the ages of 15-49, with atleast one child less than 18 years of age, were surveyed. The women came from 3 strata, rural, urban slums and urban non-slum. Data was collected from 7 States in India. It was found that 43.5% experienced psychological abusive behaviour. 40.3% experienced violent physical behaviour. Of these women, 50% experienced violence during pregnancy. 15% women reported incidents of forced sex during the previous 12 months. Another study⁷ of 1431 women from a slum in Nagpur found that 62% women

experienced some form of violence at least once. Psychological violence was greater than that of physical violence. 14.5% women reported forced sex in the last 12 months.

A review of 208 narratives collected from four organisations in Bangalore showed that the reported prevalence of physical violence was 94%, almost 75% cases of mental and psychological violence, 24% reports of cruelty and torture, 12% reports of abuse of loved ones and 5% reports of abuse from in-laws⁸. Amongst these cases, 2% were of violence during pregnancy and 4% of sexual violence. A review of records in Mumbai city shows that more than half the medico-legal cases of female patients at the corporation hospital and up to 81.8% preternatural cases in the community-based health facilities suggest domestic violence⁹. Half the women reporting to the hospital, who were likely to have experienced domestic violence, were between the ages of 18 and 30.

Nature of violence¹⁰

Physical Violence

- ☞ Kicks, slaps, fists, hits
- ☞ Being banged against walls, beaten with sticks, iron rods and utensils, being assaulted with knives
- ☞ Kerosene / acid / burns, hitting / beating / assault
- ☞ Force to eat or drink harmful substances, for e.g. poison, sleeping pills
- ☞ Violence during pregnancy like forced to have an abortion, being kicked in stomach during pregnancy; hitting the abdomen when pregnant



- 🔊 Use of weapons like blade, pouring hot oil
- 🔊 Confinement and deprivation like being tied to a pillar and beating
- 🔊 In-law abuse such as abuse by mother-in-law, or husband's friends.

Sexual Violence

- 🔊 Forced sex
- 🔊 Force to sleep with other men
- 🔊 Rape
- 🔊 Child sexual abuse
- 🔊 Injury of genitals and breasts

Psychological Violence

- 🔊 Insults, belittlement or demeaning, threats to the woman, threats to someone close to the woman, threats of abandonment, husband's unfaithfulness
- 🔊 Verbal abuse/harassment like taunts, calling the woman a prostitute, threats to burn alive, to send armed men or thugs to kill, humiliation by spitting, battering in fronts of friends
- 🔊 Depriving the woman of medication, of food, forcible sex determination test, not letting her go out of her home without permission, or mingle with relatives/friends/neighbours, visiting neighbourhood women when they are all alone¹¹

The above-mentioned studies have focused on women in the age group of 15-49 years.

8.2 Causes of violence

The following data¹² indicates that violence is an outcome of the interplay between complex factors including economic issues, gender, sexuality and substance abuse.

8.2.1 Economic Factors

- ▶ Dowry
- ▶ Tensions over money or demands for money by the woman
- ▶ Gambling habit of the husband, accusations of the woman over spending, inability to pay debts
- ▶ Community level stressors like poverty and unemployment

8.2.2 Factors related to sexuality

- ▶ Actual or suspected infidelities by either partner, accusation of being "unfaithful", speaking to other men
- ▶ Resistance to intercourse
- ▶ Husband's second marriage

8.2.3 Other Factors

- ▶ Refusal to do what the husband or in-laws asked her to do
- ▶ Lapses in fulfilling responsibilities (cooking, attending to household, looking after children and in-laws, food not being served on time)
- ▶ Traditional views about women (e.g. beating as a tool to discipline wives)
- ▶ Increased use of alcohol

8.3 Consequences of violence

Violence affects women's physical health, reproductive and sexual health, as well as their mental health.

8.3.1 Impact on women's reproductive and sexual health

Violence contributes significantly to disability and maternal deaths¹³, reducing

women's access to pre-natal care. The following impact of violence has been reported in the literature on the sexual and reproductive health of women ¹⁴:

- ▶ Reproductive tract infections
- ▶ Abdominal pain
- ▶ Menstrual problems, Leucorrhea
- ▶ STDs / HIV
- ▶ Unwanted pregnancy
- ▶ Abortion-related injury
- ▶ Fear of sex / loss of pleasure
- ▶ Miscarriage and deformity of baby
- ▶ Miscarriage and low birth weight from battering during pregnancy
- ▶ Violent sexual initiation
- ▶ Premature labour
- ▶ Gynaecological problems
- ▶ Inability to use condoms
- ▶ Genital mutilation, painful sex, soreness in the genital area
- ▶ Forced abortions of female foetuses
- ▶ Suicide or homicide related to stigma of sexual violence

A survey did not show any difference between those who were subjected to physical violence and those who were not, with respect to the average number of pregnancies or live births ¹⁵. However, the average number of children who died was significantly higher among women who were subjected to violence, particularly among those severely beaten. Besides, women who had experienced severe battery had reported a larger number of unwanted births than those who had not been subjected to such assault. Women with reproductive health ¹⁶ problems are also subjected to forced sex.

8.3.2 Impact on women's mental health

There are very few community based studies that have dealt with the topic of the mental health impact of violence ¹⁷. A study in Mumbai reported that over 60% of the victims were found to be suffering from severe psychosocial stress ¹⁸. 39% women reported suicidal ideations. 6.2% women had reported attempting suicide before seeking help from the Special Cell for Women and Children in Mumbai ¹⁹. Almost 182 (67.91%) women experiencing violence had anxiety and 215 (80.22%) suffered depression.

Table - 7

Women's report of emotional ill health following violence

ANXIETY	DEPRESSION
Restlessness/uneasiness	Tension
Sudden sweating	Suicidal tendencies
Emptiness in the stomach	Fear
No concentration	Loneliness
Palpitation	Irritability
Unnecessary thoughts	Aggression
	Shock
	Eating disorders
	Sleeping disorders
	Anger
	Frequent spells of crying
	Hopelessness
	Dislike work
	Mood disorders

8.3.3 Help seeking, carer's attitudes and mental health

Service providers may be neglectful or insensitive, increasing the mental health risk and burden on the woman. Care delivered

insensitively, especially in the context of violence may re-traumatise the woman. Only 12.13% of the victims in a study went to the doctor and almost 87.87% did not seek any help. A large, multi-center community survey showed that 45.3% of victims of violence reported the need for health care. Studies have reported that doctors ask too many personal questions and the women felt ashamed. Women do not feel comfortable discussing the topic of domestic violence with their doctors. They received unsympathetic responses from the providers. Such issues made them prefer to stay within their homes and choose home remedies. The context of violence reduces the woman's resolve to seek health care and she may not have the freedom to seek care. Other structural factors such as distance, quality and cost may prove to inhibit the women from seeking care. Approximately 50% of women victims are discharged and then referred to the psychiatric outpatient clinic and expected to visit regularly. However, since follow-up and tracking systems are absent, a majority of them are lost by the health care system.

In this section, we have not included violence related to political dynamics like communal riots, war, migration, and other such politico-economic issues. We have not explored the available data for husband battery, or other types of violence against boys and men (e.g. child sexual abuse) or adolescent girls. We have not explored the connections between chronic pelvic pain in women and its linkage with reproductive health and child sexual abuse. A prominent gap in our presentation is that we have not looked at the emerging literature on trauma in the context of domestic violence, rape and communal violence. From the biological point of view, we have also not considered the emerging literature on the linkages between violence, hormone levels and neuro-biology.

End Notes

1. Maynard, 1993
2. Koss, 1993
3. Koss et. al., 1994
4. Koss, 1990
5. Avis 1992 ; Review in Davar, 1999
6. INCLEN, 2000
7. INCLEN, 2000
8. Rao, et. al. 2000
9. Jaswal, 2000
10. Data for this table has been culled out from the following: INCLEN study, 2000; Lakdawala & Surendradas, 2001; INCLEN, Nagpur, 2000; Rao, et. al., 2000; Dave & Solanki, 2000.
11. The classification of violence here is one-dimensional and does not reflect the women's complex reality. A study (Dave & Solanki, 2000) reported that women placed many forms of physical abuse as being far more mentally disturbing than physically painful.
12. The data presented herein is culled out from the following studies: Rao, et. al., 2000; Lakdawala & Surendradas, 2001; Go et. al. 2003; INCLEN 2000; Khan et. al. 2000; Khanna, et. al. 1998.
13. Khan et. al., 2000
14. Khanna, 1998; Lakdawala & Surendradas, 2001
15. Khan, et. al., 2000: pp.21-22
16. Khanna, 1998. In this study, almost 133 women did not respond indicating that this is a sensitive issue and women did not like to talk about it openly.
17. Lakdawala & Surendradas, 2001
18. Jaswal, 2000
19. Dave & Solanki 2000
20. Lakdawala & Surendradas, 2001
21. INCLEN, 2000; Lakdawala & Surendradas, 2001
22. Jaswal, 2000
23. INCLEN, 2000; Lakdawala & Surendradas, 2001
24. INCLEN, 2000
25. Jaswal, 2000

9. Interventions for depression



Three types of treatments are possible for emotional ill health, including medical treatments, psychological treatments and psycho-social interventions. We have discussed above the diversity of experiences relating to psychological health in the context of pregnancy and childbirth. In this section, we present recent evidence on the traditionally given treatments for post partum depression, viz. anti-depressants and psychotherapy. We also discuss other treatments, which are linked to general health conditions. The limitation in this section is that, we have not addressed interventions for psychological trauma, which is a very important topic; nor have we addressed interventions for domestic violence.



to balance the emotional well-being of the mother against the risk of toxicity and adverse effects in the infant. Studies suggest an individual risk benefit analysis by the clinician to make an estimate of this balance between maternal and foetal well being. Undisputed indications for use have been described in several studies mainly in the following three cases: a diagnosis of post partum psychosis; a relapse of an earlier PND; mothers with a history of chronic depression and severe depression. Studies have also suggested the preventive use of medicines in moderately or severely depressed mothers, or mothers who are seen as "high risk".

9.1.1 Types of Anti-depressants

Anti-depressants are of three types, based on their chemical structure and presumed function in the central nervous system. They are Tricyclic Antidepressants (TCAs), Serotonin selective reuptake inhibitors (SSRIs) and Monoamine oxidase inhibitors (MAOIs).

Commonly used drugs in the treatment of depression

Venlafaxine
Fluoxetine
Sertraline
Paroxetine
Amitriptyline
Bupropion
Buspirone
Citalopram
Benzodiazepines
Psychostimulants
Tergitol
Chlorpromazine
Lithium

9.1 Anti-depressants

Anti-depressant medication is standard treatment for post natal depression. It is recognised that infant toxicity may result through the consumption of trace drug in the breast milk. This treatment approach has tried

9.1.2 Teratogenicity

In a meta-analysis of 4 earlier studies constituting 367 women, the study determined the teratogenic effects of anti-depressants¹, concluding that anti-depressants posed no fetal risk for major malformations. Commentaries on this study note that the absence of evidence of an association is not the absence of an association, and that further studies must be done before reaching a definite conclusion. Gaps have been pointed out, such as the lack of precision of the analysis. Drugs do not have to cause major malformations to be hazardous. Case reports have given a much wider range of complications due to anti-depressant use. A recent study showed that infants exposed to SSRIs during late pregnancy are at increased risk for adverse effects in the central nervous system. The infants were studied for serotonergic system related effects².

Complications reported with anti-depressant use

Suspected teratogenicity and toxicity in use of some drugs (lithium, tegretol, clonazepam)
Toxic cardiovascular effects including congestive heart failure (lithium)
Reported cases of limb deformities
Adverse pregnancy outcomes in lower mammals (rats, rabbits)
Poor foetal outcomes in lower mammals
Effects on neurological development of foetus
Interference with normal labour
Complications due to blood pressure change
Withdrawal syndrome in neonates, cyanosis, difficulty in breathing, feeding difficulties, seizures
Perinatal abnormalities when given in the 3rd trimester
Cleft lip and palate (with benzodiazepines)
Spina bifida and neural tube defects

Source: Berga and Parry (2000)

9.1.3 Effects of medicines on nursing infants

The research tradition on the use of anti-depressants on mother and infant is rich, of which we have presented only some recent or well-cited studies. Research questions for the studies have mainly been to determine traces of the given drug (anti-depressant), in breast milk and in the infant blood serum. Either the trace of the drug, or the first metabolite of the drug, or both, were studied. Some meta-analyses were also done.

Trace of drug or metabolite: While most studies pronounce medication as safe during the pregnancy and nursing period, trace drug has been found in all samples of breast milk. Trace drug and first drug metabolite have been found in a significant number of infants. No study reported zero toxicity, though zero adverse effect has been reported. Noting this, writers have urged the need for strengthening the evidence base³.

Safety: Studies report low toxicity with low dosage (20 mg or less in the western context). Foremilk and milk before 8 hours of dosing reportedly carry least risk. Age of infant may also be a significant factor in determining safety. Drug and metabolite monitoring, and individual risk-benefit analysis are the suggested recommendations for ensuring safety. Adverse events have been reported in the case of lithium, chlorpromazine and fluoxetine (Prozac). A recent study reported adverse effects on the infant CNS (Central Nervous System) in using SSRIs⁴.

Indian studies: We have found none on drug safety during pregnancy or post-partum. A recent PG text-book does not refer to precautions to be taken or guidelines for anti-depressant prescription during pregnancy. With respect to anti-psychotics, "caution" during pregnancy and lactation is advised, without mentioning the clinical aspects of exercising such caution⁵.



Table - 8
Effects of anti-depressant medication of mothers diagnosed with post-natal depression on the nursing infants

Author, date	Aim	Sample	Findings	Conclusions
Stowe, Z.N. (1997)	To determine the effect of sertraline and its metabolite in breast milk and infant serum	Serum study of 12 women	Traces of sertraline and metabolite found in all samples of breast milk Traces found 7 to 10 hours after maternal dosing Traces found more in hind milk than fore milk 6 infants had detectable concentrations and more had trace of metabolite	Safe at low dosage Metabolite monitoring recommended
Stowe, Z.N. et. al. (2003)	To determine effect of sertraline and its first metabolite in maternal and infant serum	Serum study of 26 women with Major Depressive Disorder diagnosis	In 18% of infants trace drug detected In 50% metabolite trace detected No reported short term adverse effects Hind milk after 8 to 9 hours of dosing is least safe	Pronounced safe
Stowe, Z.N. et. al. (2000)	To determine effect of paroxetine on nursing infants	Serum study of 16 pairs of mothers and infants	Trace drug found in all breast milk samples Trace more in hind milk than fore milk Not detected in serum of nursing infants	Pronounced Safe
Rampano, J. et. al. (2000)	To determine the effect of citalopram and first metabolite on nursing infants	7 pairs of mothers and children	Drug trace found in 3 infants Metabolite trace also found in 2 more No reported short term adverse effects	Pronounced safe Individual risk-benefit ratio recommended
Misri, S. et. al. (2000)	To determine the effect of paroxetine on nursing infants	Serum study of 25 mother-infant pairs where mother had a diagnosis of MDD	Drug trace found in all maternal serum and nearly all breast milk samples Trace not found in infant serum No short term adverse effects reported	Pronounced safe in low doses Long term follow up studies recommended
Ilett, K.F. et al (2002)	To determine the effect of venlafaxine and metabolite on nursing infants	Serum study of 6 pairs of mothers-infants	Drug trace found but below national 'safety' level	Individual risk benefit analysis recommended before prescription Close monitoring of infants recommended
Hendrick, V. et. al. (2001b)	To determine the effect of fluoxetine and metabolite on nursing infants	Serum study of 19 mothers and 20 infants, with mother on fluoxetine	30% infants had trace drug 85% infants also had trace metabolite Effect high 8 hours after maternal dosing Maternal dosage was positively associated with maternal dosing Low dosing carried least risk	Not safe If used, low dosage of 20 mg to be prescribed
Hendrick, V. et. al. (2003)	To determine weight gain in infants in breast fed mothers	78 mother-infant pairs studied Weight gain obtained from pediatric records	Infant weight comparable to normal children Low birth weight in mothers with long lasting depression (2 months or more)	No effect of drugs on birth weight Low birth weight in babies of mothers with long lasting depression
Hendrick, V. et. al. (2001a)	To examine serum concentration of anti-depressants in nursing infants (sertraline, paroxetine, fluvoxamine)	Serum study of 30 infants whose mothers are exposed to drugs	No trace found in infant of paroxetine or fluvoxamine Sertraline- trace found Association of trace with age of infant (-ve) and drug dosage (+ve)	Paroxetine and fluvoxamine pronounced safe
Epperson, N. et. al. (2001)	To determine the effect of SSRI exposure on infants serotonin reuptake blockade	Serum study of 14 nursing infants	5HT levels not changed in infants, but changed in mothers	Drug does not alter reuptake blockade Pronounced safe
Birnbaum, C.S. et. al. (1999)	To determine the effect of psychotropic medication on infants whose mothers had psychiatric illness during pregnancy	Serum study of 35 nursing infants of a variety of meds	26% infants showed trace drug	No agent is safer than any other No reported adverse effects Low infant toxicity

Table - 9

Meta-analysis and reviews of research on effects of antidepressant medication on infants

Author, date	Database used	
Llewellyn, A. et. al. (1998)	Medline search of articles of 3 decades	Association (+ve) between breast milk concentration to maternal serum concentration
Burt, V.K. et. al. (2001)	Medline search	Individual needs of mother-infant pair to be addressed Parents to be given all necessary information to make an informed choice The involvement of a pediatrician is essential
Chaudron, L.H. & Jefferson, J.W. (2000)	Medline Search, Lithium Database, Madison Institute of Medicine	Carbamazepine and valproate are compatible with breast feeding, but not lithium Hepatic dysfunction and lithium toxicity noted in infants
Wisner, K.L. et. al. (1996)	Medline search on 9 anti-depressants	Individual needs of mother-infant pair to be addressed Adverse events reported in case of use of doxepin and fluoxetine Research needs recommended, such as an expanded database on mother-baby serum levels; behavioural assessments of infants during nursing and longitudinal evaluation of infants

Limitations of studies: Studies on which conclusions are drawn are uncontrolled, clinical reports⁶. Besides, the sample size is too small. The results have varied according to the level of "safety" defined. Confounding factors such as poly-pharmacy and infant age have not been factored in. Variations in maternal breast milk have not been considered. The biological, metabolic and overall physiological environment of the mother-infant pair has not been taken into consideration, such as the baseline health status. "Effect of drug" has been defined only as the trace found in serum testing. Physiological parameters and whether effects were seen in CNS or co-related organ systems have not been considered, except for one recent study⁷. Long-term effects of the drug on CNS or co-related physiological systems of the mother have not been

considered. Reporting on zero adverse effects has been determined mainly in the short-term, not in the long term for both mother and infant. These have primarily depended upon mother's self-reporting and not on independent testing.

9.2 Estrogen treatment for post-partum depression

Analysis: A recent review analysed studies from 1970 to 2002, and found that estrogen treatment may be useful for relieving severe depression in the post natal period⁸. Estrogen treatment has been successful *in some women* with a severe hormone deficiency (and severe post-partum depression). Clinicians will need to make an assessment of the women for whom it will be useful. Hormone assay will surely

Table - 10
Treating post-partum depression with estrogen

Author, date	Aim	Method	Findings	Conclusion
Ahokas, A. 2001	To study estrogen deficiency in severe PND	Serum estradiol concentration study of 23 women with MDD on ICD-10 admitted to psychiatric emergency unit with treatment arm	Clinical recovery reported in 19/23 patients	Hormonal assay is a must in treatment of PND Estradiol treatment may be considered in some women with PND
Gregoire, A.J. 1996	To determine the antidepressant efficacy of estrogen	Double blind, controlled study of 61 women with MDD (on EPDS and CPIS) treated transdermally with 200 microgms of 17-beta estradiol & later with cyclical dydrogesterone	Improvement with estradiol treatment was found significant	Estradiol may be effective treatment for PPD in case of hormone deficiency Minimum effective dosage to be determined carefully Shortest duration of treatment to be determined
Harris, B. et. al. 1996	To study association between mood and progesterone / cortisol peripartum and postpartum	Prospective study of saliva concentrations of cortisol and progesterone in 120 primiparous women without marital, S-E or medical problems before and until 35 days after delivery	No association between progesterone and mood at 5 to 6 weeks post partum	Progesterone is not a prophylactic agent in PND
Kumar, C. et. al. 2003	To study the effect of estrogen treatment for prevention of postpartum psychotic depression	Prospective controlled clinical trial of 29 pregnant women with schizoaffective / bipolar illness on RDC treated transdermally with estradiol	Relapse rate was unaffected Those on a high dose of estrogen therapy needed less of psychotropic medication No difference in neuro-endocrine response	Estrogen is not a prophylactic agent in the case of post partum psychotic depression

help in making this determination. Progesterone treatment may not have a role in depression. Treatment with androgens has been found useful in dealing with decreased sexual interest in the women. Research with melatonin also is promising⁹. The emphasis is on short term and minimum dosage treatment. The preventive role of estrogens in the treatment of postpartum depression drew a

blank in one study. The long-term effect of hormone use and side effects of the treatment needs to be considered¹⁰.

9.3 Psycho-therapy

Medication is the predominant treatment idiom in mental health and has been considered as effective and standard treatment

for major depression, and therefore, for postnatal depression, with many documented effectiveness studies. Common anti-depressants have been on the essential drug list in primary care and community care in India.

However, another limb of research has shown the comparative efficacy of non-drug approaches to treatment of depression in general, as well as postpartum. Studies presented below give evidence on the comparative effectiveness of the use of anti-depressants and psychotherapies in treating post natal depression in primary care (general practice, community care, gynecological and obstetric care). Since the mid-fifties, western literature has increasingly shown that cognitive behavioural therapy, interpersonal therapy and problem solving are all equally effective (clinically effective as well as cost effective) in the treatment of depression in primary care¹¹. Studies from the west have compared anti-depressant treatment versus treatment with insight, interpersonal, cognitive behavioural psychotherapies or supportive counselling in the remission of postpartum depression.

Analysis: These studies show that the use of different types of psychotherapies can be a specific intervention and can be used even as the first line of treatment. For antenatal depression, Interpersonal therapy has been suggested as the first line of treatment¹². There is a positive role for volunteer befriending in remission from post natal depression¹³.

Tools used in the studies reviewed below for diagnosing Depression

- ▶ Hamilton Rating Scale for Depression (HRSD)
- ▶ Edinburgh Postnatal Depression Scale (EPDS)
- ▶ Kellner Symptom Questionnaire
- ▶ Clinical Global Impressions Scale (CGI)
- ▶ Clinical Psychiatric Interview Schedule (CPIS)
- ▶ Beck's Depression Inventory (BDI)
- ▶ DSM-III, DSM-IV (Diagnostic and Statistical Manual)
- ▶ Research Diagnostic Criteria (RDC)

Interventions by health visitors (HV), given a brief training in non-directive counselling, can help women to recover from postnatal depression¹⁴. Such interventions may have to be planned in the long term¹⁵. Depression occurring due to childbirth is amenable to therapeutic listening, telephonic peer support¹⁶, partner support¹⁷ and social support¹⁸. Where women prefer counselling and psychotherapy over drugs, recommendations support patient choice. In the western context, greater acceptability of psychotherapies over psychiatric drugs by women is a prominent cultural factor determining choice of treatment. In accommodating such cultural preference, a study has suggested that it may be irrational giving both drug and counselling when both

Key points

- ✿ Estrogen treatment may be useful in the case of some women.
- ✿ There is no evidence base on the long term effects of hormone use.
- ✿ In prescribing drugs during pregnancy and post partum the clinician would balance maternal well being against risk of toxicity.
- ✿ Evidence base on the safety of drugs during pregnancy and post partum is inadequate.

Table - 11

Evidence on the comparative efficacy of anti-depressants and psychotherapies

Author, date	Aim	Method	Findings	Conclusions
Appleby, et al (1997)	To determine the comparative efficacy of fluoxetine with cognitive behavioural counselling in PND	Double-blind controlled study of 87 women experiencing 6 to 8 weeks of PND 4 groups- placebo group, prozac group, CBC group and prozac+CBC group	Improvements significant in all 4 groups Prozac group did better than placebo group 6 CBC sessions group did better than 1 CBC session group Drug and CBC groups did equally well	No advantage in receiving both drug and CBC. Drug and CBC are both effective treatments for non-psychotic depression. Choice of treatment may be given to the woman.
Bedi, et. al. (2000)	To determine if counselling is as effective as antidepressants for depression in primary care	Partial random preference arms trial of 323 women with drugs, counselling and preference group	Both treatments were equally effective Preference did not confer any special benefits	Challenge to the idiom that drugs are the most effective form of treatment for depression in primary care
Casacalenda, et. al. (2002)	To determine comparative effectiveness using drugs, psychotherapy	Meta-analysis of 6 double blind, controlled studies with 833 major depression patients	No difference between active treatments, but significant difference of both treatments with placebo	Drugs and psychotherapy can be treated as equally effective first line treatment for mild to moderate depression
Chilvers, et. al. (2001)	To compare the efficacy of anti-depressant drugs and counselling in treating mild to moderate depression in general practice	323 patients randomly treated with drug or counselling Preference arms - drug or counselling	No difference between drug and counselling group at 12 months Choice group did better than no choice group Recovery quicker in drug group in the short term	Counselling is effective first line treatment for mild to moderate depression in primary care GPs should allow patients to have their own preferred treatment
Cooper and Murray (1995)	To compare the efficacy of 4 types of interventions for PND in primary care	Controlled study of outcome for women receiving 3 types of psychological treatments and 1 psychiatric	No significant difference in speedy recovery between groups No difference between type of therapist and outcome	Psychological treatment using psychotherapist or health worker are as effective as drugs for PND in primary care
Mynors-Wallis, et. al. (1995)	To determine the comparative efficacy, feasibility and acceptability of anti-depressants, placebo, problem solving (PS)	Random controlled trial of 91 primary care patients treated with problem solving (PS) and amitriptyline	PS group did better than the placebo group No significant difference between drug group and PS group Slightly more patients did better on PS	PS is effective, feasible and acceptable treatment for major depression in primary care
O'Hara, et. al., 2000	To determine the efficacy of inter-personal therapy on PND	120 women with PND on DSM-IV treated with 12 weeks of inter-personal therapy	37.5% women recovered significantly Improvements reported on social adjustment and post partum adjustment	IPT is an effective treatment for PND
Spinelli, & Endicott, (2003)	To determine comparative efficacy of IPT and parenting education	16 week controlled study with 50 pregnant women on DSM-IV criteria for major depression	60% on IPT recovered IPT was better than parent education program Maternal mood affected mother-infant interaction	IPT is effective treatment for depression during pregnancy

are independently effective in treating certain types of depression. However, one study showed that debriefing of depressed women by midwives was not beneficial¹⁹. Infact, for a small percentage of women, it was harmful.

Limitations: Only a few traditional clinic based therapies have been tested for outcome effectiveness. Even these have looked at short-

term clinical effects, not long term wellness. There is scope for much research in this area.

9.3.1 Psychotherapy in low-income settings

There are no studies in the context of developing countries which have looked at effectiveness of psychotherapy or other medical treatments for dealing with



depression during pregnancy and the post partum period. However, studies on the comparative efficacy of treatments for depression has been considered.

A comparative outcome study in Uganda adapted Interpersonal Psychotherapy for group work in rural communities in Uganda. 341 men and women with major depression or sub-syndromal depression from 15 villages were given 90 minute psychotherapy for 16 weeks in group settings. The dysfunction scale used in the study was adapted to match local perceptions about functionality. The study showed that group psychotherapy was immensely effective in reducing depression and dysfunction. The authors suggest the use of group work in other developing regions as well²⁰. Comparative outcome studies for postnatal depression are not available in India. Two related comparative treatment studies for major depression are reported here.

Interventions found clinically effective for post partum depression

- ▶ Cognitive behavioural therapy
- ▶ Interpersonal psycho-therapy
- ▶ Group Interpersonal psycho-therapy
- ▶ Problem solving
- ▶ Counselling
- ▶ Psycho-education
- ▶ Health worker supportive counselling
- ▶ Befriending by volunteers, telephonic support, partner support

There is only one study in India looking at treatment efficacy in a primary care setting²¹. It is not designed as a comparative study of drug versus psychological treatment. However, the study results show that the latter compares poorly with respect to the former. This study goes against the tide of western studies. The authors note that (1) patients' expectations of a physical treatment and (2) the severity and enduring nature of their social, economic and other problems may explain the surprising result. The authors suggest the use of fluoxetine in primary care as a quick, cheap and effective form of treatment. This is a stand-alone study in the Indian context. It may be premature to come

Table - 12

Indian studies on comparative efficacy

Author, date	Aim	Method	Findings	Conclusions
	To compare effectiveness of ECT with mood stabiliser	Double blind study of 32 bi-polar patients given either bilateral modified ECT or imipramine, with placebo in each arm	-Quicker recovery with ECT -Severity of depression reduced -Final outcome comparable	ECT is safe treatment ECT is a better option for treatment of severe depression
	Effectiveness of treatments: fluoxetine and psychological treatment	Double Blind controlled clinical trial of 450 depressed patients randomly assigned to placebo, fluoxetine or psychological treatment	-Fluoxetine was slightly better than placebo -Psychological treatment was not better than placebo	Fluoxetine is a cheap and effective form of treatment for depression in primary care in India

to conclusions about the unrestrained use of fluoxetine in primary care without further culturally relevant and comparative outcome research.

9.4 Role of placebo in treatments

There may be a large role for placebo in the treatment of depression. Researchers meta-analysed the placebo effects on 2,318 patients in 19 such randomised, controlled studies²². This was based on their finding that, in the total sampling of people in drug effectiveness studies, more people have been given placebos, than any single drug. The same magnitude of placebo effect was seen across any type of drug used. Significant difference of medication over placebo is noted in the short term, but not in the long term. Reported medication effects in the studies are a mix of drug plus placebo effects. A more recent meta-analysis of efficacy data of 6 popular anti-depressants submitted to the US FDA for approval showed that drug effect is negligible over placebo effect, and effects were actually a mix of drug and placebo effects²³.

Among the remission factors for depression, placebo effect needs to be treated as a specific intervention factor. In mental health research, compared to health research, placebo plays a large, and often confounding role, in symptom remission. This applies to drug research as well as psychotherapy research. Perhaps a large part of the 'success' attributed to counselling as well as traditional

healing, also is because of placebo effect. The effective use of placebo effect in clinical work is suggested by such research.

End Notes

1. Addis & Koren, 2000
2. Laine et. al. 2003
3. Misri & Kostaras, 2002
4. Laine, et. al. 2003
5. Vyas & Ahuja, 1999
6. For critical reviews of drug studies, see Burt, et. al. 2001; Chaudron & Jefferson, 2000; Llewellyn, A. 1998
7. Laine, et. al. 2003
8. Karuppaswamy & Vlies, 2003
9. Joffe & Cohen, 1998; Epperson, et. al. 1999; Halbreich, 1997
10. McCoy, et. al. 2003
11. Bower, et. al. 2000; Schulberg, et. al. 1996; Scott, et. al. 1997; Ward et. al. 2000
12. Spinelli & Endicott, 2003
13. Harris, et. al. 1999
14. Appleby, et. al. 2003
15. Murray, et. al. 2003; MacArthur, et. al. 2003
16. Dennis, 2003
17. Misri, et. al. 2000
18. Holden, et. al. 1989
19. Small, et. al.. 2000
20. Bolton et. al. 2003
21. Patel, et. al. 2003
22. Kirsch & Sapirstein, 1998
23. Kirsch, et. al. 2002

Key points

- ❁ Psychotherapy and anti-depressant treatment are equally effective in the treatment of post natal depression.
- ❁ Evidence for comparative effectiveness of drug versus psychotherapy in the Indian context for post natal depression is not available to make an informed clinical decision.

10. Prophylaxis and prevention



In this section, we draw corollaries from the earlier sections and present ideas as well as literature, pertaining to prophylaxis¹ and prevention of emotional problems, relating to pregnancy and childbirth.

10.1 Screening for health and nutritional problems

An important aspect of prevention of common mental health problems is to identify health problems in primary care and to improve the general health status of women. Screening and treating for severe infections, anaemia, hypothyroidism, diabetes and other endocrinological or hormonal problems, may prevent depression and common mental ill health among women. Addressing nutritional deficiencies, the deficiency of essential vitamins, minerals and fats, especially Vitamin B, D and Ca+ deficiency, in women, are important strategies for the prevention of mental ill health. Contraceptive pills, tranquillisers and anti-depressants may have their own mental health and health impact. Screening for mental health problems would take such considerations into account. A general health screening should always precede any mental health screening.

10.2 Screening for mental health problems in primary care

Often, in resource poor settings such as India, common mental health problems do not get addressed at all as a health problem. In fact, women's suffering may be recognized, if at all, for the first time, when they seek health care at the time of pregnancy and delivery. This may be an appropriate time for recording the woman's mental health history, for any evidence of earlier ill health. Identification of 'at risk' women may be possible through this procedure.

In primary care, PHC staffers in India do have a mandate in the identification of mental disorder, according to the National Mental Health Program. Screening at the ante-natal stage is the first step towards prophylaxis and prevention of psychological ill-health in primary care. Screening for depression and other common mental health problems can be conducted in the last trimester of pregnancy and in the postpartum period by health workers, at PHCs, or at the immunisation clinic². Simple tools are available, such as the EPDS, which are useful in screening.

10.3 Medication

Prophylaxis with medication is considered to be of significant importance in the case of would-be mothers with psychosis, as there is a high relapse rate in the mothers after childbirth³. Nortriptyline did not have acceptable outcome when used as prophylaxis for post natal depression⁴. 25% of sampled women under treatment with the drug during antepartum suffered relapse. However, an opposite result was posted in another study⁵.

10.4 Psychotherapy

Recent reviews⁶ have shown that

- ▶ Persons on medication for depression relapse faster than persons on IPT
- ▶ IPT alone is a very effective prevention strategy for depression

Prevention of depression in the post natal period is possible using non-drug approaches⁷. There is a large potential for using maintenance psychotherapy in the prevention of relapse of depression. A simple screening questionnaire (EPDS) and supportive counselling visits led to increased identification



and diminished symptoms among depressed postnatal women and having a structured approach gave the health visitors more confidence in dealing with depressed clients⁸. Antenatal women prone to PND joined a peer-group support as well as professional support during pregnancy and until 6 months after. The results showed that vulnerable women who had been invited to these groups showed only half the prevalence of postnatal depression than in non-invited mothers in the control group.

10.5 Counselling and support

Adequate, and vigorous preventive treatment in the pre-partum period may prevent severe puerperal worsening⁹. Giving information alone, to spread awareness about post natal depression, and to reassure that medical help is available, may not be very successful¹⁰. With training, health workers, dais, trained mid wives, social workers and counsellors may be useful in the prevention of common mental ill-health at the community level. Self-help, group work with at risk women using existing community alternatives, working with the family and peer support may be considered. An interesting and successful initiative offered "swim, gym and creche" facilities in a low-income area with high incidence of post natal depression as a preventive step¹¹. Such initiatives may be replicated in the Indian context in a culturally appropriate way.

10.6 Prevention of violence

Identifying vulnerable groups of women and running programs for them on socio-economic empowerment and addressing the issue of violence are preventive strategies for mental ill-health. Addressing domestic violence issues in marital relationships may require special competencies and organisational arrangements.

10.7 Prevention of female foeticide

The pressure on women to bear a son and the cultural harm done to the female foetus and the girl child are important aetiological factors in post partum depression. Prevention of female foeticide and bringing about attitudinal changes with respect to the girl child are preventive strategies for maternal mental ill health. Counselling women during this time would address these issues, by involving the father and the family.

10.8 Involving the fathers in parenting

Enhancing the father's role in infant care and in creating social support for the woman are important strategies for prevention of post natal depression. A study reviewed 10 years of western research on fathers as caregivers¹². Six parameters were studied, including care-giving patterns, child characteristics influencing care giving, paternal characteristics influencing care giving, maternal characteristics influencing care giving, co-parenting relationship and maternal employment. Here, we summarise the prominent findings of this research:



10.8.1 Care-giving

Fathers do give care to infants, but their care giving is greater when the mothers are employed. Variation was found in the sensitivity and care given when mothers do not work. Fathers are reported to be more sensitive to contextual factors.

10.8.2 Child characteristics

Fathers' involvement was found to be more frequent and more stable with sons, than with daughters. Fathers in the study spent more time caring for difficult infants than with easy infants. Fathers' interactions with difficult infants were however less positive than with easy infants. Fathers' involvement was more with older children than infants in large families.

10.8.3 Paternal characteristics

Fathers' employment hours and whether he holds a prestigious job determined their participation in infant care. Also determining, were the fathers' beliefs about traditional and egalitarian values, and over all gender attitudes. Fathers with traditional beliefs participated less. Beliefs about child rearing and being child-centred promoted a more positive engagement. If fathers were disapproving of maternal employment, that was also associated with their care giving. The psychological health of fathers also determined care giving. Fathers with higher self-esteem, better overall life adaptation, lower levels of depression and anxiety showed positive engagement.

10.8.4 Maternal characteristics:

The fathers' care giving is enhanced if the mothers value their participation, and see them as competent partners. The hours of maternal employment also influenced fathers' caregiving. The mother's beliefs about gender roles and an egalitarian attitude promoted the fathers' care giving.

10.8.5 Co-parenting characteristics

In the study, the fathers' perception about the marital relationship, whether positive or negative, similarly affected care giving. Harmonious marriages showed more positive engagement of fathers in child-care. Disturbed marriages were associated with negative fathering in terms of both quality and time.

In the Indian context, prevention of PND will require working with fathers, as well as with the family. Daughters in India experience fathers as aloof and distant¹³. A recent collection of narratives of single mothers describes that a husband may not only fail in his responsibility as a father but may himself be an additional burden on the woman. Violence, threats for money, spending hard-earned money for substance abuse, husband "absenteeism" appear to be realities of many women's lives, especially of women from low socio-economic set-up¹⁴.

Marital intimacy is frowned upon in most communities. Postpartum care-giving is strictly confined to mothers, and to the women within the household. The seclusion, and high ritual status given to childbirth, while being a patriarchal practice, ends up excluding men. Men end up being dismissive, skeptical, bewildered or in awe of the whole event. Fathers are actively discouraged in giving infant care, because of the patriarchal expectations from them. Fatherhood is secondary to Indian men's identity¹⁵.

Hospital environments also reinforce such patriarchal values by completely excluding the men. Men are not allowed to participate in the childbirth or in the after care of mother and child. Men often go through the whole post partum period without any bonding with the infant. Enhancing participation of fathers in childbirth as well as infant care is a challenging task.



10.9 Making breastfeeding hassle free



Prevention of anxiety and depression in the post partum period may involve addressing the concerns and needs of women regarding breast feeding. A study noted the association between difficulties in breast feeding and postnatal depression¹⁶. The aspect of breastfeeding is usually not considered as a stressful threshold to cross for the new mother and child. It is considered as natural and blissful. An extensive community documentation of breastfeeding experiences is given in the large CHETNA survey. The areas covered include food, breast feeding practices and various practical aspects of nursing. The documentation shows that breast-feeding is by and large a normal activity. However, difficulties of breast-feeding are evident in the fact that women and communities often have strategies for substitute feeding. The difficulties experienced by the women in breast feeding are not explored in this study. In a study of 400 women, the following complications are reported as arising in breastfeeding, needing care and intervention:

- ▶ Cracked nipples
- ▶ Retracted nipples
- ▶ Galactorrhoea
- ▶ Inverted nipples
- ▶ Axillary tail swelling
- ▶ Axillary tail abscess

Their treatments had an overall response rate of 80%. Their study suggests that breast milk promotion should be preceded by breast care promotion¹⁷

10.10 Role of massage

Rest and massage, after childbirth, are usually followed in traditional practices for the mother's well being and rejuvenation. Massage, which is an important part of ritual practice in India, in the post partum period may play an important role in the prevention, and treatment, of postnatal depression. 42% of the mothers who were suffering from postnatal depression in a sample said that they did not receive oil massage for their current pregnancy¹⁸. In a study, massage was found to be as effective as being in a support group for depressed mothers¹⁹.

Dais, the traditional midwives in India, use touch (sensitive handling of the woman's raw body, fomentation, massage) in a compassionate way to enable a sense of well being in her²⁰. Massage may be given, before, during and after the birthing process, as it aids in easing the pain, enhancing comfort, and in easing the "opening of the body". For example, they may give a head massage to cool the head and keep it peaceful. Ajwain and neem leaf fumigation or fomentation is given to prevent sepsis and to reduce the pain in the genital area after childbirth. Massage is also used to prevent gassiness, joint pains, aches and pains, itching and to soften the skin and to make it supple again.

A research review on the use of massage from the Touch Research Institute²¹ suggests that:

1. Pregnant women may benefit from massage therapy. Such women would be less anxious and depressed. Massage may also decrease obstetric and postnatal complications.

2. Massage during labour decreased anxiety and pain. It lessens depression.

3. Music therapy and massage therapy shifts the EEG patterns of the brains of depressed mothers in a positive way.

4. Touch in general increased infant response. Depressed mothers tend to touch their infants less frequently. Stimulation and touch by depressed mothers is a useful way of increasing positive emotions and attention by infants.

5. Mothers, to optimise the quality of their interactions with the infant, may use massage.

6. Infants of depressed mothers who received massage therapy gained daily weight, had few sleeping difficulties, were less fussy, showed improved social responses, showed lower stress levels and increased serotonin.

10.11 Emotional effects of ritual during pregnancy

Cultural rituals that mobilise support for the new mothers and assign value and respect to her role may be associated with improved postpartum mental health²². Dais extensively use rituals for many purposes during the maternity and childbirth process²³. Rituals are used to prepare the woman for childbirth. Practices such as loosening the hair, cutting of *atta* into two, and opening the locks in the house, are visual imagery which aid the woman to relax in her body and to be centered in the process of birthing. The mother and child system during this time is seen as fragile, precious, and something to be protected. "Evil spirits" and negative energies are warded off through rituals. To be mindful of the work ahead of the dais, and to leave behind their earlier preoccupations and negativity, they may use ritual: bowing near a fire, dusting off their clothes before entering the delivery room, or touching black gram and giving it away.

The LSPSS and CHETNA community study notes that rituals offer a tremendous scope for emotional healing during pregnancy and after²⁴.

- ☉ The pregnancy rituals are an interesting and engaging break from the oppressive drudgery of household labour.
- ☉ The rituals serve the purpose of a smooth initiation into a new life cycle threshold. The auspiciousness attached to rituals brings positive emotions, thoughts and supportive behaviours from the family and the community.
- ☉ The rituals bring together women with similar experiences, so there is the space for reassurance and support.
- ☉ The rituals give the opportunity to discuss anxieties, to share and learn, and to prepare oneself.
- ☉ The songs, and other creative aspects of the pregnancy rituals are therapeutic²⁵.
- ☉ The songs give spaces for women to express their problems vis a vis their new role as well as narrative scope to resolve them in multiple ways.
- ☉ The songs allow the women to re-negotiate her community relationships (*maike, sasural*).
- ☉ On this occasion, the would be mother gets special attention for her needs and a public affirmation of her new status.
- ☉ The community nature of the ritual gives the mother a sense of positive outlook and fortitude in facing the unknown.
- ☉ The stimulants and decoctions used on these occasions give a feeling of physical well being.
- ☉ The rituals reduce women's sense of guilt and feelings of inadequacy.

A clinical evidence base of this aspect of mental well being is not available, and is very much necessary²⁶.

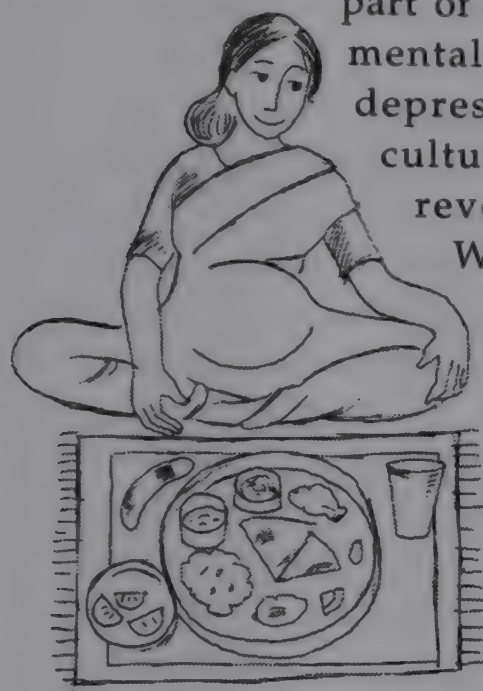


10.12 Food and mood

Clinical evidence base linking food and sleep deprivation in the post partum period, and its linkage with poor emotional health, is missing. This aspect is covered in the community, feminist literature.

Our individual self / body image and community identity is built around food and food rituals that we practice. Food experiences, habits and behaviours are a core

part of symptomatology in mental health, especially depression. Normative cultural practices often revolve around food.



Women are expected to implement the food expectations of the family and the community. Deviance from the normative food culture may be actively thwarted, including rejection

of the woman as 'insane'. Since women's lives are so closely enmeshed with the normative culture of food, cognitive, emotion and action around food is a core part of their psychological lives. The dai tradition, also deriving from indigenous knowledges, places emphasis on the linkage between food and well-being²⁷.

Emotional well being during pregnancy and food according to Ayurveda: The would-be mother should consume wholesome food, consisting of all the 6 tastes (sweet, sour, bitter, salt, astringent and pungent). The surroundings where she eats must be clean, pleasant and carefree. She should be able to taste and enjoy the subtle flavours of the food. It should be warm and pleasant, clean and fresh, fully cooked and easily digestible. Her stomach should be filled 1/3rd with solids, 1/

3rd with liquids, with another third remaining empty. She should have many small meals at frequent intervals. The 14 natural urges should not be suppressed: urination, defecation, hunger, vomiting, crying, desire of sex, thirst, flatus, burping, coughing, sneezing, sleep, yawning and breathlessness. Foods for vitality are: wheat, rice, black gram, dates, pumpkin and rocksalt. Herbs promoting vitality are *Shatavari* (*Asparagus Racemosus*); *Ashwagandha* (*Withania Somnifera*); *Yashtimadhu* (*Glycyrrhiza Glabra*) and *Bala* (*Sida Cordifolia*). The mother should continue to eat foods that she is used to eating.

Source: LSPSS and CHETNA (1996)

In Ayurveda, a pregnant woman is called a *dau-hridini* (one with 2 hearts). The heart referred here is not just the body part, but also the site of consciousness, mind and emotions. It is believed that the mothers' food cravings set up the emotional development of the child, its desires and aspirations. Women, in their daily life, do not often experience the emotion of desire, an emotion linked with positive mental health. During pregnancy, they are allowed to experience desire in the form of food cravings. The cravings allow them to turn their attention towards their bodies, and they are able to ask for special or costly foods. Food cravings engage the women's cognition also in terms of 'what is good for the child', enhancing bonding with the foetus.

Food behaviours at this time may also represent a revolt for the women used to submitting to and maintaining the normative food culture. Being used to kitchen life, aversions (to some usual foods and smells) and cravings for unusual foods (fish, clay, mud, brick, salt, coal, etc.) allow women to reject the normative. It may also indicate their experience of "support and care" from their family. Congruently, women suffering from depression reported that they were not given special diet in the period following childbirth²⁸.

The expression of desire for some foods during pregnancy could be due to malnutrition and mineral deficiency. It could also be the consequence of worm infestation.

10.13 Interventions for pregnancy and child loss

Intervention for pregnancy and child loss (abortion, miscarriage, still births and neo-natal death) is an important prevention strategy for enhancing the mental health during the following pregnancies. Bereaved parents and mothers at risk are groups for whom appropriate practices and intervention support must be set up at all levels of care, including hospital care. Women who experience miscarriage, particularly who are childless or who have a history of major depressive disorder should receive appropriate supportive counselling or psychopharmacologic treatment, according to one study²⁹. A study noted that a majority of women recover from pregnancy loss without any psychological treatment in about a year³⁰. The factors, which enabled such recovery, were not mentioned. For some women, the birth of a healthy child in a following pregnancy helped in symptom resolution³¹. However, there is a risk for some, of developing more serious emotional ill health during the first six months. There is a need for close monitoring of women who have experienced pregnancy loss³². A study assessed

the impact of encouraging the parents to see and hold their dead infant, and found that this practice resulted in a worse mental health state for the women, who experienced more depression, anxiety and psychological trauma³³. Women who did not see or handle the dead baby were, according to this study, least depressed. In one study, the depression of women suffering peri-natal loss resolved upon receiving a year of psychological treatment³⁴. The study did not support good-practice guidelines, which state that failure to see and hold the dead infant could have adverse effects on parents mourning.

Summarising, various strategies, modern as well as traditional, may be adopted for the prevention of post partum mental illhealth, and for the promotion of positive mental health in the new mothers. Traditional practices need to be explored in the context of their cultural politics. We have not looked at the literature on traditional healers for mental health, even though the dai perspective has been represented. A limitation of this section is that we have not looked at nutritional aspects from the point of view of evidence base. Another limitation is that we have not looked at the evidence base on the resilience factors, or the reasons why many women do not experience depression in the post partum period.

Key points

- ❖ Prevention of emotional ill health at the community level is possible, by effective screening for health and mental health problems.
- ❖ Evidence base for the use of medication in prophylaxis of post partum depression is inadequate. However, medication may be of use to women with a history of psychotic depression.
- ❖ Psychotherapies, counselling, and other psycho-social interventions may be effective in the prevention of depression in the post partum period.
- ❖ Various strategies have been traditionally used to enhance a new mother's sense of well being in the post partum period, including massage, nutrition, and rest.

End Notes

1. Prophylaxis refers to prevention of relapse among people who may have had prior experiences of mental illhealth. Prevention refers to the prevention of occurrence of illness among at risk persons or the general population.
2. Chandran et. al. 2002
3. Cohen, et. al., 1995
4. Wisner, K.L. et. al. 2001a
5. Wisner, K.L. et. al. 2001b
6. Segal, Williams and Teasdale, 2002
7. Elliot et. al. 1988
8. Angeli and Graham 1990; Cullinan 1991; Allen 1993 and Painter 1995
9. Chandra 2001
10. Webster, et. al. 2003
11. Wilkinson, et. al. 2003
12. NICHD Network, 2000
13. Desai, De'Souza and Shukla, 1999: The narratives, written by women about their fathers, have used descriptors such as the following in talking about their fathers- "no significant interaction until the 8th birthday"; "cruel, negligent and self-centered"; "not familiar". A narrative even reported a father fully disrobing after the morning bath in the presence of his daughter "many a time".
14. Mehrotra, 2003
15. Davar, 1999: p.221
16. Patel, et. al. 2002
17. Ganguli et. al. 2000
18. Rodrigues, M. et. al. 2002
19. Onozawa et. al. 2001
20. Chawla and Ramanujam, 2002
6. www.touchresearchinstitute.org
7. Chawla, 2001; Cox, 1988; Rice 1994; Stern and Kruckman 1983
8. Chawla and Ramanujam, 2002
9. LSPSS and CHETNA, 1996: p. 36
10. Chawla, 2001
11. Our view of ritual practice should not be interpreted as an unmindful glorification of tradition. Positions arguing in favour of ritual practice, such as Chawla, 2001, and our own here, are guided by the feminist reconstruction of what are often oppressive, patriarchal practices.
12. Chawla and Ramanujam, 2002
13. Rodrigues, M. et. al. 2002
14. Neugebauer, R. et. al. 1997)
15. Janssen, H.J. et. al. 1996
16. Turton, P. et. al. 2001
17. Robson, S. et. al. 2001
18. Hughes, P. et. al. 2002
19. Carrera, et. al. 1992
20. Chawla and Ramanujam, 2002
21. www.touchresearchinstitute.org
22. Chawla, 2001; Cox, 1988; Rice 1994; Stern and Kruckman 1983
23. Chawla and Ramanujam, 2002
24. LSPSS and CHETNA, 1996: p. 36
25. Chawla, 2001
26. Our view of ritual practice should not be interpreted as an unmindful glorification of tradition. Positions arguing in favour of ritual practice, such as Chawla, 2001, and our own here, are guided by the feminist reconstruction of what are often oppressive, patriarchal practices.
27. Chawla and Ramanujam, 2002
28. Rodrigues, M. et. al. 2002
29. Neugebauer, R. et. al. 1997)
30. Janssen, H.J. et. al. 1996
31. Turton, P. et. al. 2001
32. Robson, S. et. al. 2001
33. Hughes, P. et. al. 2002
34. Carrera, et. al. 1992

11. Services and policy development



Reproductive health policy debates have not specifically considered the mental health aspects of maternal well being. Whereas, mental health policy in India, embodied in the National Mental Health Program (GOI, 1982) has been insensitive to the special needs of vulnerable groups, including women¹. So their mental health needs during pregnancy and childbirth have not been considered.

11.1 The national mental health program

The national mental health program (NMHP) was developed by the Government of India, in consultation mainly with NIMHANS, Bangalore, in 1982, and in keeping with the promise of Alma Ata Declaration (1978) of health care for all and an inclusive definition of health. The initial pilots were also run in Bangalore, following which, initiatives were started all over the country, under District Mental Health Program schemes (DMHP). The NMHP was meant to be a community mental health policy, aiming to provide accessible, affordable, and good quality care for all by the year 2000. Involving the Primary Health Centre staff such as medical officers, starting extension services, converting mental hospitals into teaching institutes and mental health education at the community level, was seen as primary mechanisms of MH provision. Involving communities and enabling self help efforts in the community were also included.

However, the impact of NMHP on changing the mental health picture for India as a whole has been minimum. There has been a serious negligence of resource allocation into the NMHP implementation². There is a view that NMHP policy is only a strategy to push costs of care onto communities³. The NMHP

also had discrepancy between vision and implementation, lack of strategic planning and proper guidelines⁴. While the NMHP had broad objectives of fulfilling Alma Ata goals, it actually served the care needs of only a small population, i.e., those with severe mental disorder. The policy prioritized disorders such as epilepsy, mental retardation and psychoses, where it became easy to justify medicalisation (drug dispensing). Few community-based alternatives or psycho-social interventions came about through the NMHP. Community mental health became psychiatry practiced in non-hospital settings. Because of the emphasis on numbers, medication became the only means of intervention. Even though the policy promised prevention and promotion, only secondary care and referral to tertiary care were possible. The PHC staffers could not be turned into mini-psychiatrists by training. Evaluations since 1982 have looked at patient numbers without considering quality of care indicators. The model was expert driven, while claiming to be grass roots based.

After 1982, a national mental health service development plan has not been considered. Currently, the Department of Health is developing the draft of such a national plan. Mental health was integrated into the National health policy draft, 2002 in a very negligent and dissatisfactory way, just giving one or two principles of integration (integration into primary health care and improvisation of mental hospitals). State governments are starting to take interest and initiative, in the post-Erwadi scenario⁵. The Government of Gujarat has done the necessary local research, local consultations and spadework to develop a state plan⁶. Their recent strategy paper details germinal ideas on integrating mental health with reproductive health care. The Governments of Tamil Nadu,

Karnataka and Maharashtra are also moving in this direction with local initiatives and involvement.

11.2 Integration of mental health in primary care

In an ideal situation, the health care system may more readily reach women with depression, pregnant women and new mothers suffering depression and other common mental disorders while they are accessing primary care for other health services, such as reproductive health care. Offering opportunities for healing from depression at different stages of its course, as well as affordable and continuing care for severe depression, in primary care, are therefore important topics while planning effective service delivery for women.

Integration of mental health within primary care is considered to be a feasible and effective strategy in improving mental health service delivery. In the context of low income countries, a comparative study of effectiveness of usual postnatal care for depression (drugs and referral), and a stepped up care program⁷ showed the feasibility and gave a framework for integrating mental health care in primary care. The study was unique in that, it was an evaluation of a community-based program. The program was designed taking into consideration existing parameters of primary health care in a low-income country (Chile). Stepped up care included a 3 month multi-component intervention provided by non-medical workers, including psycho-education, problem solving, behavioural modification, activity scheduling and medication. The study showed the large and significant difference in favour of the stepped up care program. Their study highlighted the following:

1. Treatment of depression can be integrated with primary health care
2. Non-medical community workers

would have a large role to play in managing depression (psycho-education, psychological treatment, monitoring treatment)

3. Existing health care parameters and culturally relevant factors have to be considered in designing care

4. Radical changes to established health practices should be viewed with caution

PHC staffers in India do have a mandate of working with emotional health. However, there have been several problems in implementing this mandate, including lack of evaluation of training, medical orientation of training, and the inherent weaknesses of the primary health care system. Failure to recognise depression and other common mental health problems at the primary health care centers may be due to short appointment, physical orientation of care and an emphasis on the baby's rather than the mother's well-being. Cultural factors may also operate, such as dismissal or negligence of women's emotional suffering.

11.3 Integration of mental health in reproductive health care

Integration of mental health in reproductive health care programs has been suggested⁸, with the caveat that such integration should factor in the limitations of existing RCH program. The situation of service delivery in reproductive health and maternal health care in the country is far below the minimum basic standard⁹. There is the question whether the goal of screening for severe mental ill health or identifying high-risk women who may require prophylactics or preventive intervention can actually be implemented. Screening for depression and other common mental health problems can be conducted in the last trimester of pregnancy and in the postpartum period by health workers, at ante-natal clinics, PHCs, or at the



immunisation clinic¹⁰. Simple tools are available, such as the EPDS, which are useful in screening. However, the limitations of the existing health care system make such a possibility stark. A more serious concern in such integration is the one of needless medicalisation. Another concern is the labelling of women and further stigmatisation in the community. In India, standard clinical guidelines about assessments are not available, making diagnosis a very subjective enterprise. If service providers across the board are involved in diagnosis, the procedure may become even more erratic than it is as of now.

Reproductive health history should also assist the service provider in evaluating the risk and cause of a woman's emotional ill health in the post partum period.

Bereaved parents and mothers at risk are groups for whom appropriate practices and intervention support must be set up at all levels of care, including hospital care. As the focus of reproductive health programmes in many countries is on population control the health needs of bereaved parents have gone unheard. Therefore the current reproductive health programs lead to compromise of the right to lead a healthy life of these couples.

Infertility is experienced as a moment for loss and grieving by women. "Infertility is similar to a death in that grieving is helpful and necessary. Loss can be manifested in getting a period each month, a failed IVF/donor cycle, having to consider other options, giving up on having a genetic child, or deciding not to have a child. My experience is that people who come to these support groups are often avoiding painful feelings. This can lead to depression and interfere with decision-making"¹¹. The stress of infertility and its treatment may exacerbate other psychiatric conditions such as mood or anxiety disorders. The ovulation-inducing agents may also

exacerbate psychiatric problems or reduce the effectiveness of psychotropic medication. The need for psychological counselling before, during and after IVF or other assisted technology¹² has been suggested.

11.4 Improvement in general maternal health status

Poor mental health, as noted above, especially depression, is multifactorial. Treatment of depression with anti-depressants may be a short term solution to long endured or chronic political, social, interpersonal, nutritional or health problems.

Improvement of general health status is an important mental health intervention, as poor health status directly affects mental well being (noted above). Poverty reduction and ensuring food security are the systemic factors conducive to better psychological health. Maternal well being is dependent on health during childhood as well as adolescence. The nutritional basis of psychological health is increasingly recognised, especially the role of proteins and amino acids, essential fatty acids (EFAs), Vitamins B, D, C and E, and minerals such as iron and calcium. Sugars and sugar metabolism have a major role to play in mood related experiences. The World Health Organisation and other national mental health organisations have created awareness on the vital role of nutrition during, and in the postnatal period, in the prevention of neurological problems of infants.

At present, service providers do not consider base line health status. A baseline health evaluation must form the basis of depression treatment. Severe anaemia can cause depression in the post partum period, and a study has proposed rational iron treatment to redress the situation¹³. In India, while hypothyroidism is prevalent widely, this issue is not addressed in health care. Cost and poor diagnostic facilities in most parts of India



could be a prohibitive factor, as in the case of all hormone assays. A history of thyroid dysfunction in the family or in the mother may alert the doctor towards the endocrinological basis of depression. Similarly, diabetes, blood pressure, infections, and other medical conditions should be checked before administering anti-depressants. Sepsis and vitamin B deficiency should be checked before starting anyone on anti-psychotic medication.

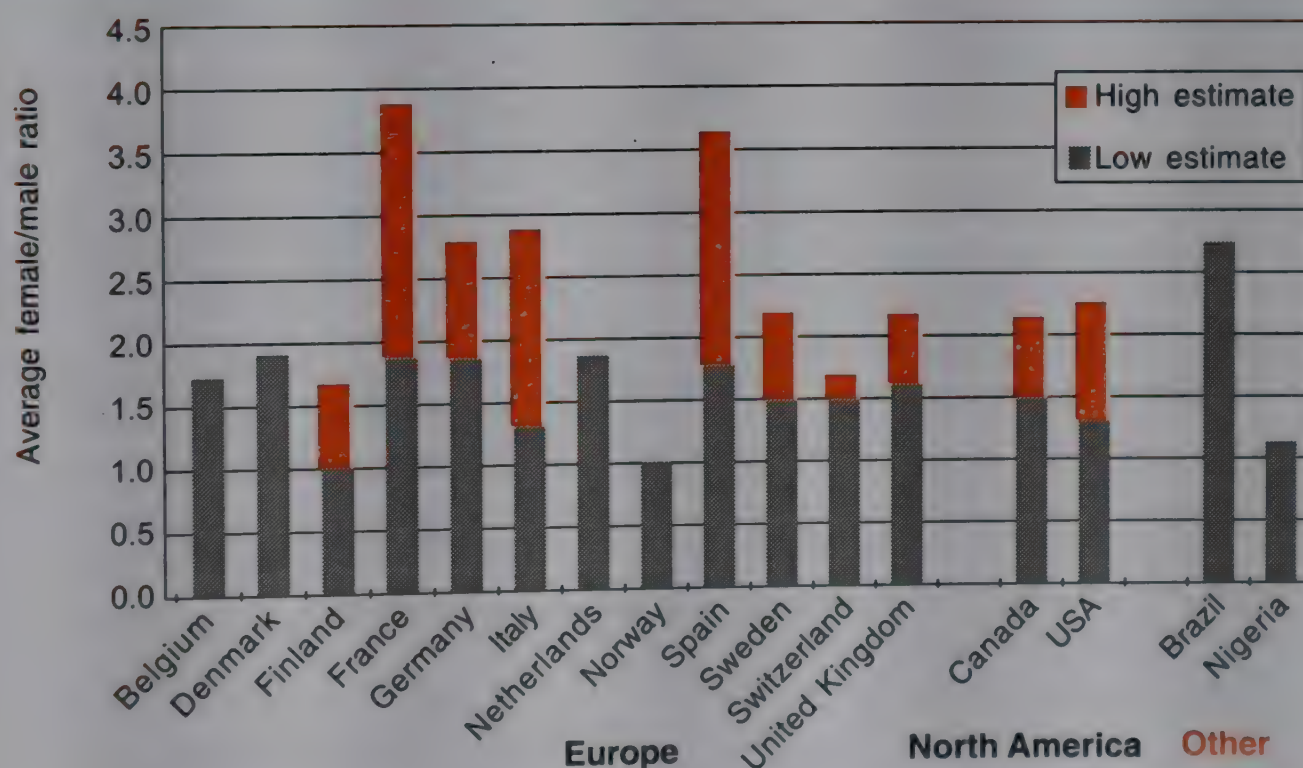
The right to food and strengthening of the public distribution system, therefore, has a vital role to play in improving the mental health of pregnant women and mothers in primary care. In 1970, the Ministry of Health and Family Welfare, GOI, started a program of (National Nutrition Anaemia Prophylaxis Programme) NNAPP, including pregnant women, lactating women and infants. Pregnant women and lactating mothers were to be given iron and folic acid for 100 days during pregnancy. In 1987-1989, an ICMR Task Force evaluated the program, reporting

poor impact of the program even after 15 years of the program¹⁴. A revitalised program in early 1990 (National Nutritional Anaemia Control Programme, NNACP) gave highest priority to universal coverage of pregnant women. There is a need to advocate for the universal coverage of this program, while its short comings need to be addressed.

11.5 Use of drugs for poor mental health

Earlier reviews by one of the authors of this report¹⁵ noted the following problems in the context of medication: the over prescriptions and irrational prescriptions. In India, doctors in general practice, gynecologists and other specialists involved in health care, regularly prescribe anti-depressants and benzodiazepines to women during the pregnancy and the post-partum period¹⁶. Even anti-psychotics are being prescribed in primary care. At the community level, psycho-social interventions are few. Such

Figure: Average female/male ratio of psychotropic drug use, selected countries



Note: The horizontal bold line at 1.0 indicates where the ration of female to male use of psychotic drugs is equal. Above this line women use more such drugs than men. In countries where more than one study was conducted, high and low estimates are provided in darker shade and grey.

practices are leading to an ever increasing medicalisation of psycho-social problems. Other than this, it was also noted that women outnumber men in the use of drugs for mental disorder. Given below is a recent graph showing the sex ratio in the use of medication for a mental disorder. The graph shows that far more women are given medications than men.

Continuous care in mental health should include concerns relating to the need and effective management of the side effects of medication. Anti-depressants have sedative and other varied side effects. How mothers are expected to manage the responsibilities of childcare while suffering disability because of the medication has not been considered in the evidence base. A gendered analysis of psychopharmacology is not available, to make informed responses to psychiatric medication. Doctors construe women's complaints about side effects as a further symptom of their madness¹⁷. In India, patient consent and partnering in treatment is rarely considered in the case of patients labelled with a psychiatric disability. Doctors often resort to unfair practices, such as moralising, chastising, reporting to the husband or the family, giving the role of a drug dispenser to a carer in the home, allowing surreptitious mixing of medicines with food, and other more forcible and bad practices. It has been suggested that doctors skill in listening to clients' complaints of side effects be enhanced, as this is the most common reason for "non-compliance"¹⁸.

Policy debate and professional consensus on drug safety during pregnancy must be developed and must become a part of our drug policy. Professionals must be encouraged through regulatory mechanisms to be aware of and take cognisance of safe use practices. They must inform parents about safety measures in order to minimize the risk to infant.

There are four broad concerns regarding anti-depressant use, including

- ▶ Anti-depressants can cause proper medical conditions.
- ▶ Anti-depressant usage can mask any underlying physiological, hormonal or other medical conditions (such as hypothyroidism and adrenal problems)
- ▶ Anti-depressant usage can worsen some underlying physiological, hormonal or other medical condition.
- ▶ Anti-depressant usage can cause physiological, hormonal and other medical conditions.
- ▶ Anti-depressant usage can worsen or cause psychological conditions.

Source: Hedaya (2000)¹⁹

We are suggesting the need for a robust research and a policy debate on the safe use of psychiatric drugs during pregnancy and in the post-partum period. Such a debate would determine:

1. A culturally appropriate evidence base
2. Considerations of the long term well-being of the mother
3. Considerations of long term child well-being
4. Considerations for doing risk-benefit analysis for both mother and child
5. Broad criteria of safety for mother-infant dyad rather than just serum toxicity and immediate adverse effects
6. Determination of safety
7. A policy on prescribing practices
8. An integrated evidence based medicine including psychopharmacology, psychiatry, endocrinology, nutrition and dietetics, gynecology / obstetrics, and pediatrics

Our review has consistently shown the causal linkage of depression to life stress and adverse events. If this is the case, then, planning for the mother's well being must include therapeutic strategies and psychological treatments for empowering the mother's relationships and her social empowerment. A purely drug oriented approach during pregnancy or after, is a short term approach to maternal as well as child well-being. It assumes that the mother needs to be well only during the infant nursing period, while her longer struggle with depression and with her life situations can be ignored.

A risk of integrating mental health at the PHC level is needless medicalisation. The weakness of the mental health care system has led to a situation where nothing more is expected from grass roots level workers, except case identification, medication and referral²⁰. In the DMHP, a basic list of essential drugs has been developed, which are being dispensed by the medical staff and community workers. Medication is the driving force of community mental health services in India, because of poor capacity development in psycho-social interventions. A recent study²¹ suggested that fluoxetine is a cheap, safe and effective treatment for depression in primary care. However, it may be premature to come to conclusions about the unrestrained use of fluoxetine in primary care without further culturally relevant and comparative outcome research. Further, there are no regulations or adequate safe guards in India on the pharmaceutical industry to restrict its vested interests in such research findings. Such results must therefore be posted with adequate caution and only after development of an adequate data base.

11.6 Psychotherapies

There are two main reasons why the community mental health program in India is drug driven:

1. The community mental health programs have not developed imaginative psycho-social interventions for utilisation at the community level and

2. A related point, that they have not fully utilised local human resources capacities for mental health work at the community level (community health workers, volunteers, NGO field workers, traditional birth attendants, dais, social workers, psychologists, etc.)²².

As noted in section 9.3 above, various forms of psychotherapies can be effectively used in the treatment of depression at the level of primary care. Therapists and counsellors have a vital role to play promotion of mental health, prevention of mental illness, and in the treatment of mild to moderate, even severe, depression. Community based counselling and group therapies may be effective in the context of India rather than clinic based therapies.

The cost of psychotherapy has been an express concern in the context of the developing world. In one study, the cost of psychological treatments in primary care was offset by the decreased cost of using other health service supports or contacts²³. However, this study is in the western context. Cost-effectiveness in the context of the developing world must be debated and considered if such studies were to be done here.

11.7 Hormone treatment for depression

Even though research literature is rife with the "hormonal theory of mental illness" in women, database linking hormone variation with psychiatric problems have not been found in the Indian context. Hormone treatments (for low levels of estrogen and hypothyroidism) are viewed favourably as treatments in their own right, for some women, comparable, if not superior to drugs, for stabilising mood in the post partum period.

Practising gynecologists with sensitivity to the women patients regularly do make clinical linkages between mood disorder and hormones. The practice of exhaustive medical and family history for hormone deficiency and reproductive history at the clinical interview stage is suggested to decide a rational approach- that is, whether the depression or the hormone deficit has to take clinical priority. Duration and dosage require careful determination. Hormone assays may be helpful in identifying women in whom hormone treatment may relieve mood. Integrated medicine (psychiatry, gynecology, endocrinology) needs to be practised in this area.

The cost of doing reliable hormone assays may be prohibitive for most women seeking health care in India. Other cost-effective means of identifying women with severe hormone depletion have to be found. The clinical diagnostic interviews in psychiatry could be more comprehensive, including the reproductive health and family history aspects.

Berga and Parry (2000)'s recommended protocol for treatment of post natal depression:

1. Immediate supportive psychotherapy
2. Estradiol treatment
3. Anti-depressants use
4. Both estradiol and medication, where necessary
5. Thyroid test is considered vital

11.8 Feminist approaches

Feminist psychology and therapies are built on the view that the feminine experience of the world is rhythmic and connected, rather than linear and individuated²⁴. Feminist therapies always set emancipatory goals for women. Feminist therapies have been developed with a view to introduce gender equality within therapeutic relationships. The clinician may intervene with a man / woman's

concepts about gender and how that is worked through his / her relationships. The clinician would also be concerned about how gender works through the clinical exchange itself. Feminist therapies also open up interpretative spaces to allow for play on gender positions within the clinical exchange. Stereotypical or essentialist values ("men are like that" or "women are like that") are avoided. The boundaries between the clinician and the user are more expansive than in conventional therapies. The approach is non-dualistic, open and non-judgmental, including values of respect, dignity, compassion, safety and nurturance. There is greater space for mutual self-expression, by compassionate use of touch, emotion, empathy, and self-disclosure. Negative values are not attached to the clinician's vulnerability, nor is there any emphasis on blocking the self-conscious presentation of those vulnerabilities. They raise the consciousness of individual women on the play between the private and the political. They enable the women to utilise their anger and other emotions in dealing with their oppressive life situations.

The question about "risk" and "dosage" in traditional psychotherapy has not been nor can it be stringently articulated. Concerns about "safe" psychotherapy, or what is conducive for emotional healing, and what will not re-traumatise, has not been addressed. A dose of anti-depressant can be given without much reference to the underlying cultural value system of the treating doctor and what his or her views are about gender. But can a "dose" of counselling be given to a PND mother in a value-free manner?

For example, a study²⁵ suggests that in counselling a depressed mother, she should be made aware that a woman with a child enjoys better status in Indian society than a woman without a child. Such judgemental counselling approaches may reinforce gender stereotyping

and push women into roles that they may not identify with. If the primary goal of counselling is set as merely increasing maternal bonding with the infant, this would result in ignoring the overall patriarchal framework within which new mothers are expected to function. The notion of "maternal ambivalence" needs to be understood in a woman-centered and social constructionist way, instead of just seeing it as malingering by the mother of an all-important role.

Every mental health service program or a component thereof would have to be gender assessed. A service provider protocol needs to be developed which will be empathetic to women's perspective and experiences of motherhood. Counselling and service provision would also evolve ethical principles on the overall sexual politics of clinical work. Importantly, the protocol would cover topics such as judging and stigmatising mothers, giving them negative attributions, forcing them into a caring role, imposing restrictions on the basis of cultural norms, not addressing the overall social context of their emotional life, ignoring the violence in their lives, making them feel guilty and small for their behaviour, not involving the fathers or other support figures, treating her without her consent, and not giving her adequate information.

11.9 Medical education and training

In dealing with post-natal depression, a contemporary, widely used textbook²⁶ shows large gaps in both presentation of evidence as well as bias against women. There is no reference to health status in pregnant women, nutritional depletion following childbirth, or other socio-cultural determinants of mental health during pregnancy and following childbirth. Violence is not talked about, despite it being a public health emergency. Stigmatising views about the suffering mothers are presented: Depressed mothers are said to

suffer from "maturation crisis", "castration complex", "sadistic tendencies towards men", "failure to resolve their Oedipal phase", "inability to assume the mothering role". A strange new diagnostic category is suggested, called "postpartum perplexity syndrome"²⁷ without any reference to literature or to any background discussion on the genesis or validation of this. In the textbook, this syndrome refers to "severe personality disorganization and profound quandary about role as new mother".

There is a need for the gender sensitisation of the medical education system, including a revision of psychiatry textbooks from a gender perspective. Mental health professionals may be given training in women's health and reproductive health issues, and in the recognition and identification of common but highly prevalent health problems among women. Providers in health and mental health need to be given gender training as well.

11.10 Human rights concerns about shock treatment in India

Indian professionals consider ECT safe and the first line of practice. The axiom that "ECT has no side effects" is repeated through the literature. Writers even suggest that ECT should be considered for the less severely depressed, going against all standard international protocol for the procedure²⁸. A recent petition has been pending before the Supreme Court filed by Saarthak, a mental health NGO from New Delhi, questioned the use of the hazardous procedure of 'direct ECT'²⁹. We consider ECT without anaesthesia as a human rights violation. Women have been given ECT without the use of anaesthesia in all the trimesters of pregnancy³⁰. In the western context, guidelines exist about the appropriate use of ECT. ECT is a "last defence" treatment in specific instances to treat a pregnant mother, for example, in case a woman is severely suicidal³¹. The mother and her partner

need to be fully informed about her condition, risks of the treatment, possible alternatives and the long-term prognosis for her illness. Families who are involved in these decisions should get reliable medical advice and gather all the information they can and be objective about the options before them.

11.11 Alternative healing practices

A topic of high importance in mental health service delivery is the role of traditional healers and alternative medical practitioners in mental health service delivery. A high percentage of women consult traditional healers, showing the need for better understanding of and linkages between traditional systems and modern healing practices. A report of a sufi shrine in Ahmedabad suggested that the ambiance of traditional healing is not alienating, and the priest acts as a brother, friend or a confidante³². Women, especially dalit women³³ flock to such places in large numbers because of spiritual, socio-economic and cultural reasons. A study reflects that majority of the childless couple said that they visited religious places like temples, churches, dargahs and gurudwaras depending upon religion and also performed various rituals like yagna or mahapooja. They did so because they felt that it gave them psychological relief and mental peace and also prevented the consequences of marital disharmony or disruption³⁴.

Recent studies have shown that even seriously ill patients show a modest recovery after their treatment in a traditional healing center³⁵. Professionals have persisted in taking traditional healing seriously and have found means of integrating them into mainstream services³⁶. The tradition of research in Malaysia shows that traditional healers have incorporated religious-cultural aspects into the treatment of neurotic disorders with success. Guided thought psychotherapies ("Religious

Cultural Psychotherapy") were constructed on the basis of traditional healing, which incorporate religious ideas along with CBT. Comparative outcomes with standard treatment (benzos + supportive therapy) in the treatment of anxiety patients was good. Traditional healing may come with its own gender and cultural hierarchies and exploitative practices³⁷. However, these issues are common to all service providers and need to be addressed through regulatory procedures. Traditional healers must be seen as local capacity groups and their role more creatively defined by meaningful integration into service delivery³⁸.

Role of dais in mental health promotion and prevention of ill health: There are around 60,000 dais in India. The dais are attending to 50% to 60% of births in India. The dais' cosmology (bemata, a goddess, entering the body and leaving when the child is born) aids them in seeing childbirth as a natural, but sacred process. The believed presence of bemata ensures a respectful approach to the woman's body. The dais have a holistic and respectful approach to the woman's bodies in childbirth, or an "ability to read the body"³⁹. The concept of hawa gola⁴⁰ acknowledges the fact that the mother is especially vulnerable in the post partum period, needing special attention. The 40 days of the dai - jacchha bond is quite precious, in their view⁴¹. The dais aim not only to bring out the child safely into the world, but also to address the needs of the mother and to ensure her well being. Rituals, involving the use of metaphor and imagery, are used to prepare the woman for the childbirth. Food, reducing pain, enhancing physical comfort and well being, as much as possible in the given circumstances, are emphasized. They value the placenta and the cord, which bio-medicine rejects as waste. The cutting of the cord and final disposal of it is done respectfully, and there are norms about cord cutting (who can cut, when, ensuring



mother's participation in cutting the cord, penalty in the dai community for premature cord cutting, etc.). The dai comes in "secretly" in order to normalise the birthing environment. She tries to establish a peaceful and meditative environment where there is no shouting or panic around the mother, no hustle and bustle, and there is a lot of quiet. In interacting with the woman, they are expected to show affection, and give reassurance. As the involvement of the dai is over a long period of time, she may act as confidante, and the mother may talk to the dai about things she does not share with her own mother or mother-in-law.

Traditional birth attendants, midwives, dais, may offer an alternative system of healing practise in comparison to hospital practice. The nurturance aspect of it needs to be investigated further especially its role in enhancing the new mother's mental health.

11.12 Making birth a joyful experience

Gender determinants of maternal health care - What we know

- ☞ Gender hierarchy at home determined where women gave birth⁴²
- ☞ Even though antenatal care service utilisation may be high, delayed antenatal care was common amongst women with poor education, high gravidity and those working as labourers⁴³
- ☞ Poverty and economic hardships further confounded gender aspects of making decisions about seeking help
- ☞ Women attended antenatal clinics only when they had an acute problem such as bleeding⁴⁴
- ☞ Women did not attend antenatal clinics in the seclusion period following delivery, because of cultural proscriptions

- ☞ The stigma of being seen to be "sick" and having "angohani" i.e. defective body, any form of incision, whether abdominal or perineal⁴⁵, influenced decision making
- ☞ Women felt more vulnerable when revealing their condition publicly and so were afraid of seeking help when needed⁴⁶
- ☞ Community norms for acceptable maternal behaviour may determine help seeking, by constituting what is "normalcy" at this time

Maternity services have hitherto emphasised the importance of accessibility and availability of services, and the training of health personnel. There is a need to be sensitive to the plight of and empower women giving birth, as well as to bring about change in the behaviour of health providers. Women should be able to have a safe, smooth and supportive experience of childbirth and mothering in primary care. The human dimension of maternity care has to be insisted upon⁴⁷. For a majority of the women, explanation, understanding and support would be of most benefit⁴⁸.

Women do not access care for depression or other emotional difficulties. A study reports that though 71 women were suffering from depression none of these had sought help, probably due to the understanding that this state is a normal part of pregnancy and the postpartum period^{49, 50}. Most women didn't seek help due to the perception of lack of treatment options for their illness and concern about the reaction from family members. Of the few mothers who sought medical help none had complained directly to the doctor about their emotional symptoms. Women usually opted for home remedies. Mothers who were chronically depressed were more likely to have consulted their primary care doctors or general outpatient clinic at the hospital than the other mothers⁵¹. But most of

the women also mentioned that there was no point in informing their husbands about their distress because of their feeling that their husbands would be disinterested or even hostile.

Women have widely reported the need for caring attitudes, dignity, privacy and emotional support⁵². By caring they meant the continual checking of their condition, providing medications, and regularly asking after their health. Dignity was associated with having someone sit close by and not being neglected, being attended to and to being treated well. On privacy, women felt that it was not maintained due to lack of cultural understanding and the dismissive attitudes by staff and society towards poor women. Women also linked privacy to shame and felt uncomfortable lying undressed on labour table in front of unknown faces.

Emotional support was considered to be very crucial and constant reassurance made them feel strong. There was also the feeling that women should be more involved in what was being done to them during labour and childbirth. Women should be counselled about any deviation from normal care. Once the medical staff take over, there is no communication about what they are planning during the crucial hours of labour and delivery. Almost all women would not like to have unsavoury practices done on them, such as enema, shaving and episiotomy. Women have asked for changes such as, reducing overcrowding in the labour room, provision of drinking water, improvements in sanitary conditions, allowing a relative, a shorter labour period, and free provision of expensive drugs.

For many women, in a study, hospitalisation is not a first choice, but rather the outcome of an emergency. Most women prefer giving birth at home, attended by a traditional midwife. The reasons for not

attending the clinics include the insensitive and superior attitude of the nurses and doctors towards the women. Besides there is enormous difference between the bio-medical perspective and the local women's perception of the pain incurred in pregnancy and in birth. These women considered pain to be an integral part of the local construction of femininity. They reported anguish due to the harsh attitude of the hospital staff towards their pain. Women felt that the hospital staff is impatient with the birthing, and woman's experience of pain. They are impatient when a baby is overdue. This impatience is characterised and evinced in an overly hasty resort to "tearing open the woman's stomach and vagina" (which is the women's way of seeing caesarean section and episiotomy)⁵³.

11.13 Medico-legal concerns

Understanding women's aggression in the post partum period, within the overall psychosocial and cultural context of childbirth is very much necessary. However, maternal aggression is an important area of medico-legal concern in the context of mental disorder. Treatment of psychosis following childbirth is usually aggressive, not only because of the perceived maternal impairment in care giving, but also a possible / attendant risk of harm or injury to the infant. Experiential accounts of psychosis highlight various shades of attachment and detachment from the infant, as discussed in Section 6.3 above. From the medico-legal point of view, decisions about competency and the intention to harm are core issues.

A study looked at the prevalence of infanticidal ideas among new mothers who came to a mental health institute with a diagnosis of severe mental disorder⁵⁴. However, this study has not surveyed the social or life context of women, nor the meanings of their rage. Issues such as marital life, conflict, domestic violence, previous maternal experiences, pressures to bear a girl



child, etc. have not been considered in the aetiology of depression or aggressive behaviour. Further, the number of children, previous pregnancies and abortions, stress of child care, nutritional depletion, problems of sugar metabolism and other physiological aspects, having a direct impact on maternal wellness, have not been considered.

The study proposes that infanticidal ideation (i.e. thoughts of harming the infant) is significantly associated with infanticidal behaviour (i.e. actually harming the infant). This connection, if true, suggests intention and plans to harm in infanticidal mothers with post partum psychiatric problems. However, the study protocol did not specifically explore intentionality in the mothers and the suggestion of intentionality is purely statistical. Phenomenologically oriented studies are required to treat the complex subject of maternal intent to harm or kill.

The topic of maternal filicide is a matter of great relevance to the criminal justice system. The medico-legal implications of this suggestion have not been discussed, nor the clinical ethical implications (for example, steps to take if a mother is found to be severely ideational for aggression).

Service delivery recommendations of this paper are contestable. Aggression and intention to harm the child are proposed as stand alone psychological events needing specific interventions (anger management). Maternal satisfaction and pleasure in bonding with the child are proposed as goals of interventions. It is considered adequate to address mother-child bonding without addressing the larger psychosocial context of mothering or the mother's physical or reproductive or social history. Regular clinical assessments regarding ideation, intentionality, dangerousness and risk to infant are suggested. This too, is a short term service objective, of simply preventing a crisis, without

smoothing out the overall psycho-social environment.

An assessment regarding dangerousness and risk is a central concern in the interphase between law and mental disorder. In the context of maternal filicide, because of perceived risk to the child, professionals have considered this topic in depth. Professionals have approached this topic from the standpoint of universal value, saying that mothers should not harm or attempt to kill their infants. Recent discussions around Mrs Yates, a mentally ill woman who was recently executed in the US for killing her children, have shown that courts do not consider a claim of insanity to over ride issues of responsibility, in the context of homicide.

Studies on medico-legal aspects of PND must not propagate cultural stereotyping about women. A study compared women who developed psychiatric disturbance post-partum with those who did not⁵⁵. The study linked postnatal psychiatric disturbance with mother's neuroticism and expectations about the sex of the child. The authors contend that it is not the sex of the child per se, which is vital, but the fact that the woman is particular about having either a boy or a girl. However, the expectation of the women about wanting to have a boy or girl child is determined by the larger socio-cultural context and who makes these choices. Not many women have the space or choice to exercise their own will or the decision-making powers, when it comes to childbirth and sex preference.

The issue of maternal filicide is linked with the larger medico-legal issue of sex determination. By suggesting that women with post partum psychiatric problems are potential girl child killers, the cultural accountability to the issue becomes completely undermined. Just as dowry death often gets written off as women's depression and suicide, sex based



infanticide will be written off by the court as a result of the mother's psychiatric problems. In both cases, women will carry the cross and end up to languish within custodial institutions⁵⁶, declared "unfit for trial" and never coming before the court for justice.

Summarising, a policy of integration and cross sector co-ordination is required to make the necessary linkages between mental health and maternal health. The policy would consider not only treatment but also prevention and promotion aspects. Preventive steps in the Indian context for women accessing obstetric care would involve

- ▶ Identifying high risk mothers in the antenatal stage itself through screening (women in difficult or conflict ridden marital situations; women with earlier, chronic or antenatal depression or PND)
- ▶ Family Counselling for partners and family on topics such as domestic quarrel, marital conflict, domestic violence, and sex preference
- ▶ Family Counselling for partners and family on caring together for the newborn, breastfeeding, caring for the woman
- ▶ Improving the health status of the new mothers
- ▶ Optimal use of supportive traditional practices
- ▶ Prophylactic medication for women with a history of bi-polar illness
- ▶ Planning for the continuing care of women with chronic major depression
- ▶ Women friendly maternal health care services

A more diverse range of people, including dais and traditional healers may be considered as local capacity for mental health service provision. Capacity building for psycho-social interventions would be an important part of developing this grass roots cadre. The service

system would address the special problems of women with a diagnosis of psychosis, including emergency medical care. Peer-group work has proved very successful in improving women's empowerment and health. There is no reason why such models cannot be better utilised in the context of PND. RCH and FP program managers, women's groups working on health and reproductive health, departments dealing with women's health, and planning officials all require to be sensitised to the mental health aspects of MCH. It is a part of women's experience that fulfilling women's immediate demands for more sensitive care will only enhance their mental health.

End Notes

1. Davar, 1999: pp. 147-159
2. In the post-Erwadi scenario, in the year 2002, Rs. 190 crores has been released by the Central Government for mental health sector improvements. Of this money, over 60 crores has been given to modernisation of mental hospitals (including painting, infrastructure development, toilets, etc.). Another 35 crores has been given to strengthening medical psychiatric teaching departments. 10 crores has been given for training, with three medical psychiatric institutions (NIMHANS, IHBAS, PGI) being recognised for giving the training. 1 crore has been given each, to 75 districts, to replicate the district mental health program (which is medical psychiatric in its present form). Promotion of mental health, prevention and rehabilitation has not been talked about. Monies will be disbursed to central institutes, and medical psychiatric programs will be run from these institutes.
3. Discussed in Davar, 1999: pp. 147-159
4. Davar, 1999: pp. 147-159
5. In August, 1999, 27 mentally ill people abandoned by their families in a private shelter in Erwadi, Tamil Nadu, were charred to death in a fire accident. Following this, the Supreme Court took suo moto action asking every state to file affidavits on the implementation of the Mental Health Act, 1987, in their state, as well as the state of mental health services. Also coming under greater surveillance are the traditional healing institutions and practices.
6. Mental health mission, 2003

7. Araya, et. al. 2003
8. Mental health mission, 2003
9. Jeejeeboy, 2002
10. Chandran et. al. 2002
11. Frank, 1999: p. 248
12. Burt Hendrick, 1997
13. Patterson, 2001
14. Rao, 2003
15. Davar, 1999
16. Shatrugna 1999; Khanna, 2003
17. Shapiro-Baruch, 2002
18. Hedaya, 2000
19. Written by a top psycho-pharmacologist in the US, practising integrative psychiatry, this book, called "The anti-depressant survival guide" gives a holistic approach to drug prescriptions. According to Hedaya, anti-depressant usage has a cyclical effect, compromising health and well being in the long term. Anyone on a purely medication program for depression will have greater sugar cravings, feel less inclined to get out of bed in the morning, feel less interested in life, feel more moody and lethargic, etc. in the long run. Anti-depressants seem to give instant psychological relief but compromises physiological, and consequently, psychological functioning over a period of time, reinforcing and entrenching the depression. A holistic medication approach, the "Anti-depressant Survival Program", gives a wide range of options in optimising medication use in the case of depression. In this program, anyone on anti-depressants adheres, by clinical protocol, to follow a standard but rigorous program of nutrition, fitness, exercise and spiritual awakening schedule, along with the medication.
20. Davar, 1999
21. Patel, et. al. 2003
22. An integrated approach to human resource development in mental health is presented in the recent GoG report 2003.
23. Schulberg, et. al. 1998
24. Walker, (1998).
25. Shah et. al. 1999: p. 374
26. Vyas & Ahuja, 1999
27. Vyas & Ahuja, 1999: p. 372
28. Andrade et. al. 1989
29. Direct ECT refers to the barbaric practice of giving ECT without anesthesia. Patients are vulnerable to many hazards as they frankly convulse during the procedure. We consider this practice as a clear human rights violation. International instruments consider this practice as a form of torture. For more on this, see www.cambindia.com
30. Tharyan, et. al.
31. Misri, S. (1995)
32. Kolker, 2002
33. Polit & Sax, 2002
34. Mulgaonkar, 2002
35. Raghuram, et al 2002
36. Razali et al, 2002
37. Skultans, 1991
38. Mental Health Mission, GoG, 2003
39. Chawla & Ramanujam, 2002: p. 22
40. Hawa gola is when the the "baby's house" becomes empty and the woman's body grieves and searches for the baby.
41. Chawla & Ramanujam, 2002
42. Kaosar, & Sabina, F.R., 2001
43. Ramakrishna, et. al., 2000
44. Kendell, et. al., 2001, Ngoc Nga and Marrow, 1999
45. Kaosar, & Sabina, 2001
46. Kendell, et. al., 2001
47. Kendell, et al, 2001
48. Pitt, 1968
49. Chandran et. al. 2002
50. Another study posted similar results (Rodrigues, et. al. 2002).
51. Patel, et. al., 2002
52. Kaosar & Sabina, 2001
53. Ram, 1994
54. Chandra, et. al., 2002
54. Jacob, et. al. 1977
55. Dhanda, 2001

12. In conclusion: Research gaps



Our review has shown that there are many threads of research relating to epidemiology, causality, treatment, prevention and promotion that are available, relating to the period of pregnancy and childbirth. However, there are gaps in the research. Some areas of research are well developed while others are still very sketchy. In the Indian context, there is an urgent need to promote a robust tradition of psycho-social studies concerning the emotional health and wellbeing of women, related to pregnancy and childbirth. A wide range of topics may be considered for future work.

Mental health research related to maternal health in India has concentrated mainly on the medical aspects. Community based studies or psycho-social studies are few. Women's experiences of motherhood have not been captured by phenomenological or qualitative research methods.

The reproductive health data has not considered disability caused by emotional problems. Data on DALYs due to reproductive ill-health does not take into account the disability faced by women due to psychosis, antenatal depression, or postnatal depression. Data on maternal deaths that may have occurred as a result of suicides due to puerperal psychosis or postnatal depression or for that matter, due to other maternal problems, is not available.

There are few studies in the Indian context on depression per se. The research context required to validate the aetiological basis of depression is missing. Locus of control - that is, the degree of a woman's agency over her life - is a very important aspect in the causation of depression. Women's choice, decision-making and locus of control with

respect to childbirth, child preference, and other events associated with it, has not been considered in the studies.

Women and employment is also a vast area for study in the context of post natal depression. This requires independent attention. There are no studies in the Indian context of this aspect.

Studies need to be done on the nature and course of post natal depression in the Indian context, as no such studies are available.

Research needs to be conducted to probe into various factors that enable improvement in women's mental health, without any external intervention. The study of risk factors must be supported by a study of resilience factors and what are the psycho-social factors, which aid in the recovery of the women during the pregnancy and in the post partum period. There is a need to conduct studies, taking into consideration confounding factors like time, and the social support of partners, which might play a crucial role in enabling the recovery of the women.

The role of fathers in the postnatal period needs to be intensively studied. Depression, hostility, substance abuse among fathers, would-be fathers and their effects of infant development and care giving, has not been studied.

Linkages between previous mental health difficulties, life stress and psychological problems relating to a present pregnancy have to be studied comprehensively. In the few available studies, childbirth experience itself is restricted to the mother-infant dyad, and not the larger community milieu. For example, the role of rituals, a highly significant aspect of



childbirth in India, has not been considered. The studies need to include the cultural aspects. The health and reproductive health status of mothers, malnutrition, infections, the deficiency of essential nutrients such as iron, changes in endocrine status and their linkages with depression, in the postpartum period, should also to be considered. RH history, and the causative role of previous abortions, miscarriages, gynecological complications and other previously experienced hardships and events, has to be considered.

Evidence base must be developed, linking the quality of maternal health care with PND, extensively recording women's psychological experiences relating to hospital, doctors, the medical process of birth as well as provider practices relating to pregnancy, child birth and after care. Such research will help in creating mental health friendly maternal health services in India.

Few studies were found on the role of domestic violence in the context of marital conflict, pregnancy and PND, for example, whether pregnancy, being a period of greater vulnerability, is a risk factor for increased violence. Few studies have been found, linking the pregnancy, and childbirth to the experiences of fathers, and other caregivers, such as grandparents, in the community.

Women's experiences with respect to changes in her self, her body, body image, sexuality, and sexual experiences, during the pregnancy and post partum have to be considered. Childbirth, for many women, signifies the end of a threshold, the end of desire and of an autonomous sexual identity.

Recourse to drug or psychotherapy has to be debated and further researched in the context of cultural aspects and consumer preferences. Evidence base on the teratogenic effects of antidepressants is inadequate. Research needs to be done, such as an

expanded database on mother-baby serum levels, behavioural assessments of infants during nursing and a longitudinal evaluation of infants. Evidence base has to be developed on the long term effects of hormone use, in the treatment of post-natal depression. The medical evidence base has to be integrated, including psycho-pharmacology, psychiatry, nutrition & dietetics, endocrinology, gynecology / obstetrics and pediatrics.

It is required to include intervention for PND in primary care, in the context of low income countries. However, the primary research for this needs to be developed and strengthened. The evidence base required to make informed clinical decisions on medication for PND in India is lacking. Unless this is prepared, justification for evidence based, ethical practice remains dim. Group psychotherapy may be more culturally acceptable in this context, than individual counselling. Evidence base in India must be developed on this topic. Controversial treatments, such as ECT, proposed as having an effective outcome for mental illness must be critically addressed.

The Mental Health Act, 1987 is currently being debated nationally in all interest groups in mental health, including consumers, professionals, policy makers and institution managers. Medico-legal studies are required on the subject of infanticidal ideation and homicide.

The clinical basis of post-natal depression has to be more thoroughly interrogated from a feminist point of view. The year 2003 has seen a spurt of studies on post-natal depression, especially in the context of developing countries, even while primary research on depression per se is poorly developed. We must investigate why this is so. The globalisation aspects of research, and the role that pharmaceutical companies may have to play in this process, needs to be examined more carefully.



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List of Libraries/Institutions Visited

A. Pune Libraries

- Armed Forces Medical College
- B.J. Medical College
- K.E.M. Hospital
- Foundation for Research in Community Health
- Tathapi
- Resource Centre of Bapu Trust
- Jayakar Library, University of Pune
- Drs. Bela Ganatra and Siddhi Hirve's resource centre (Synthesis Initiative)
- CEHAT (Pune)

B. Other Libraries

- HELP (Mumbai)
- TISS (Deonar)
- Institute for Research in Reproduction (Mumbai)
- Indian Institute of Population Studies (Deonar)
- NIMHANS (Bangalore)
- Sangath (Goa)
- Spastic Society of India (Mumbai)
- CEHAT (Mumbai)
- Sangama (Bangalore)

Journals Scanned

- American Journal of Psychiatry
- Archives of General Psychiatry
- British Journal of Psychiatry
- British Journal of Nutrition
- British Medical Journal
- Culture, Medicine and Psychiatry
- Culture, Sexuality and Medicine
- Economic and Political Weekly
- Indian Journal of Community Medicine
- Indian Journal of Psychiatry
- International Journal of Social Psychiatry
- Journal of Family Welfare
- Journal of Health Management
- Journal of Obstetrics and Gynaecology of India



- Journal of Psychosomatic Research
- NIMHANS Journal
- Psychological Medicine
- Reproductive Health Matters
- Social Science and Medicine
- Studies in Family Planning
- The Lancet
- WHO Bulletin

We express our deep gratitude to the following persons for their invaluable contribution and support during the review work:

- ❖ Dr Prabha Chandra from NIMHANS (Bangalore) and Dr Vikram Patel from Sangath (Goa), Dr Tharayan (C.M.C. Vellore) for providing us with copies of their work.
- ❖ Dr Vikram Patel from Sangath (Goa) and Ms. Shelley Saha for sharing research materials from their personal collections.
- ❖ Dr Bela Ganatra and Siddhi Hirve for granting access to their personal resource centre.
- ❖ Ms. T.K.Sundari Ravindran from RUWSEC (Tamil Nadu) for providing us with database CDs on the earlier 'Gender and reproductive health research initiatives' annotated bibliographies published as a part of Ford Foundation initiative.
- ❖ CHETNA (Gujarat) and National Medical Library (New Delhi) for promptly sending us the required materials.
- ❖ All the libraries and institutions that provided access to their resources and other facilities like photocopying etc.
- ❖ The Mac Arthur Foundation for supporting this work.
- ❖ The Bapu Trust for Research on Mind & Discourse, Pune, for housing the Mac Arthur FLD during the project period and allowing us use of office space and library resources.





Key features of some common mental health problems

Source: Vikram Patel, 2003, Where there is no psychiatrist. London: Gaskell

Depression

A person with depression will experience some of the following symptoms:

Physical

- * Tiredness and a feeling of fatigue and weakness
- * Vague aches and pains all over the body

Feeling

- * Feeling sad and miserable
- * A loss of interest in life, social interactions, work, etc.
- * Guilty feelings

Thinking

- * Hopelessness about the future
- * Difficulty making decisions
- * Thoughts that he is not as good as others (low self-esteem)
- * Thoughts that would be better if he were not alive
- * Suicidal ideas and plans
- * Difficulty in concentrating

Behaving

- * Disturbed sleep (usually reduced sleep, but occasionally too much sleep)
- * Poor appetite (sometimes increased appetite)
- * Reduced sex drive

Anxiety

A person with anxiety will experience some of the following symptoms:

Physical

- ❖ Feeling her heart is beating fast (palpitations)
- ❖ A feeling of suffocation
- ❖ Dizziness
- ❖ Trembling, shaking all over
- ❖ Headaches
- ❖ Pins and needles (or sensation of ants crawling) on her limbs or face

Feeling

- ❖ Feeling as if something terrible is going to happen to her
- ❖ Feeling scared

Thinking

- ❖ Worrying too much about her problems or her health to die, lose control or go mad (these thoughts are often associated with severe physical symptoms and extreme fear)
- ❖ Repeatedly thinking the same distressing thought again and again despite efforts to stop thinking them



Behaving

- ❖ Avoiding situations that she is scared of, such as market places or public transport
- ❖ Poor sleep

Schizophrenia

A person with schizophrenia will experience some of the following symptoms:

Physical

- ◆ Strange complaints, such as the sensation that an animal or unusual objects are inside his body

Feeling

- ◆ Depression
- ◆ A loss of interest and motivation in daily activities
- ◆ Feeling scared of being harmed

Thinking

- ◆ Difficulty thinking clearly
- ◆ Strange thoughts, such as believing that others are trying to harm him or that his mind is being controlled by external forces (such thoughts are also called 'delusions')

Behaving

- ◆ Withdrawal from usual activities
- ◆ Restlessness, pacing about
- ◆ Aggressive behaviour
- ◆ Bizarre behaviour such as hoarding rubbish
- ◆ Poor self-care and hygiene
- ◆ Answering questions with irrelevant answers

Imagining

- ◆ Hearing voices that talk about him, particularly nasty voices (hallucinations)
- ◆ Seeing things that others cannot (hallucinations)

Mania

A person with mania will experience some of the following symptoms:

Feeling

- * Feeling on top of the world
- * Feeling happy without any reason
- * Irritability

Thinking

- * Believing that she has special powers or is a special person
- * Believing that others are trying to harm her
- * Denying that there is any illness at all

Behaving

- * Rapid speech
- * Being socially irresponsible, such as being sexually inappropriate

- ★ Being unable to relax or sit still
- ★ Sleeping less
- ★ Trying to do many things but not managing to complete anything
- ★ Refusing treatment

Imagining

- ★ Hearing voices that others cannot (often, these voices tell her that she is an important person who do great things)

Acute or brief psychoses

The symptoms are similar to those of schizophrenia and mania. The key is that the symptoms begin suddenly and last less than a month. The typical symptoms seen are:

- ❖ Severe behavioural disturbance such as restlessness and aggression.
- ❖ Hearing voices or seeing things others cannot.
- ❖ Bizarre beliefs
- ❖ Talking nonsense
- ❖ Fearful emotional state or rapidly changing emotions (from fears to laughter)

Delirium (acute psychosis caused by a brain or medical illness)

A person with delirium will experience some of the following symptoms:

- ❖ Disorientation (he does not know where he is or what time it is)
- ❖ Fever, excess sweating, raised pulse rate and other physical signs
- ❖ Poor memory
- ❖ Disturbed sleep pattern
- ❖ Visual hallucinations (seeing things others cannot)
- ❖ Symptoms that vary from hour to hour, with periods of apparent recovery alternating with periods of severe symptoms



Glossary



Amnesia	Loss of memory
Cyanosis	Blueness of the skin from insufficient oxygen in the blood
DALY	Disability Adjusted Life Year is a time-based, composite indicator of burden of disease that adds losses of healthy life due to morbidity and associated disability to losses due to premature deaths.
Dissociation	Unconscious defence mechanism whereby conflicting ideas and feelings are separated from the rest of the psyche.
DSM	Diagnostic and Statistical Manual, giving diagnostic criteria for mental ill-health
Filicide	Killing of the infant
Galactorrhoea	Excessive flow of breast milk or spontaneous milk production at times other than after pregnancy.
Gonadal failure	Failure of development of the gonads i.e. the ovaries in the female, that produce eggs (ova) and the testicles in the male, that produce sperms.
Hallucinations	A false perception, auditory, visual, sensory; an experience without detectable basis in external reality
Hypersomnia	Abnormally prolonged sleep from which the affected person can be aroused only with difficulty and for brief periods.
Multipara	Woman who has borne more than one child
Post Traumatic Stress Disorder	The development of fear, helplessness or horror in response to an event including actual or threatened death to self, the witnessing of an event involving the death or threat of harm to another, or learning of the death or threat of injury to a family member or friend.
Primipara	Woman who has had or who is giving birth to her first child
Psychosis	Major general category of mental illness often characterised by loss of insight and during which symptoms such as hallucinations and delusions are experienced.
Spina bifida	A developmental defect in the rear part of one or more of the vertebrae of the spine so that the neural tissue and the covering meninges can protrude to a varying degree.
Teratogenicity	The production of a fetal congenital bodily abnormality.
Toxaemia	The presence of bacterial or other poisons (toxins) in the blood.

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